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**Review Article**


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## **Corona Virus (2019 n-CoV) – A review article**

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### **ABSTRACT**

The corona virus otherwise called as Wuhan corona virus is found to be very dangerous virus which causes complete respiratory failure. The corona virus was designated as “2019 nCoV” several steps was taken by the china to develop vaccines against corona virus. So many vaccines are under animal testing to prevent the effects of corona virus. The first human infection by corona virus was occurred in December 2019. The acute respiratory disease remains unclear and death rate is increased. World Health Organization (WHO) led by Director General Dr. Tedros Adhanom Ghebreyesus, focussed on improvement measures in Wuhan, to strengthen public health measure and to conduct studies on virus. The measures will advance scientific understanding of the virus and lead to the development of vaccines and treatment of corona virus infected people.

**Keywords:** Wuhan, China, Animal, 2019-nCoV, Vaccine.

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### **INTRODUCTION**

- Number of viruses that cause diseases in animals, birds and in human. [1, 2]
- Corona in Latin means ‘HALO’ or ‘CROWN’.
- Wuhan coronavirus, is a contagious virus causes respiratory infections. [3, 4] It is a ongoing health issue 2019-2020. The viruses was first identified in Wuhan china, It is a new virus found in 2019 in china.
- Coronavirus shows positive sense single standard RNA coronavirus of genomic

sequencing. [5, 6] Coronavirus shows similarities to SARS-CoV of 79.5% and bat coronavirus of 96%. Close contact of people who are infected. [7, 8] are at greater risk of exposure of virus. In United States on January 21st 2020 the first infection was identified.

### **Types of corona virus**

- 229E (Alpha Coronavirus)
- NL63 (Alpha Coronavirus)
- OC43 (Beta Coronavirus)
- HKUI (Beta Coronavirus)

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## Transmission

- The virus is transmitted from human – human and spread through close contact with respiratory droplets from cough sneezing of infected person.
- WHO states that “transmission from asymptomatic cases is likely not a major driver of transmission” at this time.
- Animals sold for food were found to have the reservoir for coronavirus, so china has temporarily banned trade and consumption of wild animals. Coronavirus belongs to the family coronavirus “nCoV”.
- Coronavirus causes cold to severe respiratory disease, CoV belongs to the subgenus of sarbeco virus. Five genomes of CoV isolated from Wuhan on 12th January 2020 and reported by CCDC (Chinese Centre for Disease Control and Prevention). The reported five genomes increased to twenty-eight by 26th January 2020.
- Researches found that ACE2 is the receptor for 2019 – nCoV on 22th January 2020.
- On 30th January 2020 this virus was indicated as emergency health issue by WHO.
- In china on 9th February 2020 37,555 confirmed cases of infection was identified.
- The respiratory disease remains unclear and leads to death.

## Diagnosis

- Physical Exam
- Blood Test
- Sputum Test

## Treatment

- There is no cure, no medicines are available. Treatment includes:
- Taking care of yourself.
- Rest.
- Drinking more water.
- Avoid smoking and smoky area.
- Medicines available are acetaminophen, ibuprofen or naproxen to reduce pain and fever.
- Clean humidifier or cool moist vaporiser can be used.

## Vaccines available

- Based on published genome several research works were going on from January 2020 to create vaccines against 2019 – nCoV.
- Professor Robin Shattock from imperial college of London developed the vaccines, and it is now being tested on animals to predict safety and efficacy of the vaccines.
- In china CCDC is developing a vaccine against coronavirus. The team of yuen-kwok-yung at the university of Hong Kong announced that vaccine for coronavirus is in developing stage.
- Shanghai East Hospital with Biotechnology company stemirna therapeutics was also developing vaccines. So many Biotechnology companies moderna and inovio pharmaceuticals are also developing vaccines.
- United States National Institute of Health (NIH) is co-operating with moderna to create vaccines for corona virus.
- DNA based vaccines are developing by Inovio Pharmaceuticals.
- In Australia the University of Queensland is also working with corona virus vaccines.
- The Public Health Agency of Canada has granted permission to International vaccine centre to begin the work against coronavirus.

## Symptoms and prevention

- The Symptoms of 2019 – nCoV are fever, cough, shortness of breath and pneumonia.
- We can protect ourselves from corona virus by avoiding exposure to that virus. We can prevent the spreading of respiratory virus by following ways:
- Avoiding contact with virus affected sick people.
- Stay in home if sick.
- Cover the nose with tissue paper during coughing and sneezing.
- The patient infected with coronavirus should be isolated and medical care should be given.
- Frequently hand washing is necessary after direct contact with sick people.
- Avoid unprotected contact with animals.

## CONCLUSION

WHO is providing recommendations to reduce risk of transmission from animals to human. Several countries are working with the preparation of vaccines against corona virus. WHO is coordinating with researches for clinical care, diagnosis, treatment, prevention of transmission of

corona virus. In China over 41537 confirmed cases are found and the corona virus is spread to several other places like Japan, Korea, Singapore, Australia, Malaysia, Thailand, Nepal, Germany, Canada etc., The diseases affected person are identified, isolated and given clinical care to reduce the spreading of disease in future.

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