

Epidemiology Unit Ministry of Health and Indigenous Medical Services 231, De Saram Place, Colombo 10 Tel: (011) 2695112, Fax: (011) 2696583



Novel Corona Virus 2019 ["COVID - 19]: The Disease

2019 novel coronavirus (COVID 19) is a virus identified as the cause of an outbreak of respiratory illness first detected in Wuhan, China. Early on, many of the patients in the outbreak in Wuhan, China reportedly had some link to a large seafood and animal market, suggesting to animal – to person spread. However, a growing number of patients reportedly have not had exposure to animal markets, suggesting person to person spread is occurring..

Infectious Agent

It is an emerging zoonotic disease that is transmitted between animal and human. Virus is a un segmented, single Stranded positive strand RNA virus. It belongs to the family of viruses that include the virus causes common cold, and viruses such as severe acute respiratory syndrome (SARS) and Middle East Respiratory Syndrome (MERS). A novel coronavirus (nCoV) is a new strain that has not been previously identified in humans.

Mode of Transmission

Person to person disease transmission has been proven through droplets and close contacts. People who are living on travelling to affected areas or who have had contact with other cases may be at risk of contracting the disease. Viruses generally can survive for several hours on smooth surfaces. If the temperature and humidity permit, they can survive for several days. The novel coronavirus is sensitive to ultraviolet rays and heat. Sustained heat at 132.8°F for 30 minutes, ether, 75% alcohol, chlorine-containing disinfectants, peracetic acid, chloroform and chlohexidine can effectively inactivate the virus. It can survive in air 4hrs (50-59°F), droplets 24 hrs (<77°F), Nasal mucus 30mts (132.8°F), hands <5mts (68-86°F) and wood 48hrs (50-59°F), stainless steel 24hrs (50-59°F).

Sign and Symptoms

Mild to severe cases were reported among affected. Fever, cough, shortness of breath and breathing difficulties are the main manifesting disease symptoms among cases. Pneumonia, sever acute respiratory syndrome, kidney failure and death have been reported according to the severity of the disease. Chest radiographs show invasive pneumonic infiltrates in both lungs. People with underlying illness that make them more vulnerable to respiratory disease, including those with diabetes, chronic lung disease, pre-existing kidney failure, or those who have suppressed immune systems, may be at higher risk

Reported incubation period is 2 days to 14 days after exposure.

Laboratory Diagnosis

There is no specific test for Novel corona virus 2019. Virus isolation is done through Polymerase Chain Reaction (PCR) assay by using upper respiratory tract samples (nasopharyngeal swab and viral throat swab), lower respiratory tract samples, if possible and sputum if patient has a productive cough, according to the guideline given.

Collection of samples should be done under the guidance of standard precaution and dispatch of samples should be carried out under the correct temperature.

Treatment

There is no specific antiviral treatment or vaccine available for 2019-nCoV. When a disease is new, no vaccine is available until one is developed. Symptomatic and supportive care is recommended according to the severity of the case.

Prevention

Prevention methods recommended for other corona viruses are applicable to the 2019 novel corona virus prevention. The World Health Organization (WHO) recommends measures to reduce the general risk of acute respiratory infections while travelling in or from affected areas by:

- Frequent hand cleaning by using soap, water or alcohol based hand rub.
- When coughing and sneezing need to cover mouth and nose with flexed elbow, handkerchief or tissue and dispose used tissues correctly with hand washing.
- Avoid close contact with people suffering from acute respiratory infections
- If you have developed fever, cough and shortness of breath, need to consult a medical practitioner and need to tell travel history, if any.
- Consumption of raw or undercooked animal products should be avoided as good food safety practices.

Avoid close contact with live or dead farm or wild animals

References

https://www.who.int/emergencies/diseases/novel-coronavirus-2019 https://www.who.int/news-room/q-a-detail/q-a-coronaviruses https://www.who.int/health-topics/coronavirus/laboratory-diagnostics-for-novelcoronavirus

Zhou Wang, The Corona virus prevention hand book, 101 sciences based tips that could save your life, 2020, 27-29