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2019 Novel Coronavirus – Evaluation of Patients Under Investigation, Infection Prevention & Control

Visit the CDC 2019-nCoV website <https://www.cdc.gov/coronavirus/2019-ncov/index.html> for the most current information

Background

Coronaviruses are a large family of viruses. Most strains cause illness in animal populations, including cats and bats. In humans, coronaviruses cause mild to moderate upper-respiratory illnesses, similar to the common cold. In more severe cases, coronaviruses can cause lower-respiratory tract illnesses such as bronchitis or pneumonia. Severe illness occurs more often in persons with cardiopulmonary disease, among persons with weakened immune systems, infants and older adults.

The 2019 novel (new) coronavirus, termed 2019-nCoV, was initially detected in Wuhan City, Hubei Province, China in December 2019. This virus is in the same family of virus that causes Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Symptom (SARS).

Early human cases of 2019-nCoV were reported to have some link to a large seafood and animal market in Wuhan City. However, as the number of cases continue to increase, there has been limited person-to-person transmission demonstrated. The level of transmissibility between people is not yet known for this strain of coronavirus.

Symptoms

Patients with confirmed 2019-nCoV infection have reportedly experienced symptoms consistent with mild to severe respiratory illness including:

- Fever
- Cough
- Shortness of breath

Current information estimates the incubation period ranges from 2 days to 14 days after exposure.

Epidemiology

As of this publication (January 27, 2020), there are an estimated 2,500 plus cases world-wide, the majority of which have occurred in mainland China. Most cases are not severe, although there have been 56 reported deaths, these have occurred mostly among elderly persons and persons with additional health complications. No deaths outside of mainland China have been reported to date. According to CDC, there are currently five (5) cases reported in the United States; all have had a recent travel history to Wuhan City, China.

As of January 27, 2020, no cases of 2019-nCoV have been reported in Washoe County. Although 2019-nCoV is not listed as a reportable condition, it is considered an extraordinary occurrence of illness per Nevada Administrative Code 441A and must be reported if suspected.

General Prevention

Similar to other coronaviruses, 2019-nCoV is thought to be spread through respiratory droplets produced when an infected person sneezes or coughs.

There is no vaccine to prevent 2019-nCoV infection. The best way to prevent illness is to avoid being exposed and exercise baseline preventive actions including:

- Washing hands with soap and water for at least 20 seconds. If soap and water are not available, use an alcohol-based sanitizer.
- Avoid touching your eyes, nose, and mouth.
- Avoid close contact with people who are sick.
- Stay at home when you are feeling sick.
- Cover your coughs and sneezes with a tissue, then throw the tissue in the trash.
- Clean and disinfect frequently touched objects and surfaces.

These everyday habits help prevent the spread of several types of viruses and bacteria.

Healthcare Infection Prevention & Control

There is much unknown about the etiology of the 2019-nCoV, however CDC recommends a cautious approach to patients under investigation.

- **Ask any patient presenting with respiratory symptoms to wear a mask at all times.**
- Screen patients for travel.
- Patients should be evaluated in a private room with the door closed, preferably in an airborne infection isolation room, if available.
- Healthcare providers should use airborne precautions, contact precautions, standard precautions, and eye protection (e.g., goggles or a face shield).

Healthcare personnel should also be familiar with their organization's policies and procedures for the assessment and triage of patients with acute respiratory symptoms,

patient placement, implementation of Airborne, Contact, and Standard Precautions, including the use of eye protection, as well as visitor management and exclusion.

Additionally, frontline healthcare and infection control and prevention personnel should stay up to date on the latest information about signs and symptoms, diagnostic testing, criteria for a PUI for the 2019-nCoV illness.

<https://www.cdc.gov/coronavirus/2019-nCoV/summary.html>

Review <https://www.cdc.gov/coronavirus/2019-nCoV/infection-control.html> for CDC infection control recommendations for 2019-nCoV, which will be updated as new information becomes available.

Risk Assessment

CDC has developed a set of criteria to determine if someone should be considered as a “Person Under Investigation” (PUI) in association with 2019-nCoV. **CDC has recently communicated the criteria for determining a PUI will be changing, however did not have an estimated release. Therefore, instead of referring to potentially outdated criteria, use the following link to check the criteria which are subject to change.**

<https://www.cdc.gov/coronavirus/2019-nCoV/clinical-criteria.html>

Clinical Testing

If a patient is suspected to meet the criteria for a PUI, WCHD will work with the Nevada Division of Public and Behavioral Health (DPBH) to coordinate specimen collection and shipment in conjunction with the Nevada State Public Health Laboratory and the CDC.

As of now, testing for 2019-nCoV can only be conducted at CDC, however in the coming days and weeks CDC will share these tests with domestic and international partners. A real time Reverse Transcription-Polymerase Chain Reaction (rRT-PCR) test has been developed to diagnose 2019-nCoV in respiratory and serum samples from clinical specimens.

CDC recommends three specimen types be collected: 1) lower respiratory; 2) upper respiratory; and 3) sputum.

Testing for other respiratory pathogens should be done as part of the initial evaluation but should not delay specimen shipping to CDC. If possible, additional specimen types (e.g., stool, urine) should be collected and stored until a decision is made by CDC whether additional specimen sources should be tested.

Reporting

If you suspect a case meets the PUI criteria, contact Washoe County Health District’s CD Program immediately at (775) 328-2447.