Update and Interim Guidance on Outbreak of 2019 Novel Coronavirus (2019-nCoV) in Wuhan, China

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Summary
The Centers for Disease Control and Prevention (CDC) continues to closely monitor an outbreak of a 2019 novel coronavirus (2019-nCoV) in Wuhan City, Hubei Province, China that began in December 2019. CDC has established an Incident Management System to coordinate a domestic and international public health response.

Coronaviruses are a large family of viruses. Some cause illness in people; numerous other coronaviruses circulate among animals, including camels, cats, and bats. Rarely, animal coronaviruses can evolve and infect people and then spread between people such as has been seen with Middle Eastern Respiratory Syndrome Coronavirus (MERS-CoV) (https://www.cdc.gov/coronavirus/mers/index.html) and Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) (https://www.cdc.gov/sars/index.html).

Chinese authorities report most patients in the Wuhan City outbreak have been epidemiologically linked to a large seafood and animal market, suggesting a possible zoonotic origin to the outbreak. Chinese authorities additionally report that they are monitoring several hundred healthcare workers who are caring for outbreak patients; no spread of this virus from patients to healthcare personnel has been reported to date. Chinese authorities are reporting no ongoing spread of this virus in the community, but they cannot rule out that some limited person-to-person spread may be occurring. China has reported that two of the patients have died, including one with pre-existing medical conditions. Chinese health officials publicly posted the genetic sequence of the 2019-nCoV on January 12, 2020. This will facilitate identification of infections with this virus and development of specific diagnostic tests.

Thailand and Japan have confirmed additional cases of 2019-nCoV in travelers from Wuhan, China. It is possible that more cases will be identified in the coming days. This is an ongoing investigation and given previous experience with MERS-CoV and SARS-CoV, it is possible that person-person spread may occur. There is much more to learn about the transmissibility, severity, and other features associated with 2019-nCoV as the investigations in China, Thailand, and Japan continue. Additional information about this novel virus is needed to better inform population risk.

This HAN Update provides a situational update and guidance to state and local health departments and healthcare providers that supersedes guidance in CDC's HAN Advisory 424 distributed on January 8,

2020. This HAN Update adds guidance for evaluation of patients under investigation (PUI) for 2019-nCoV, prevention and infection control guidance, including the addition of an eye protection recommendation, and additional information on specimen collection.

Background

An outbreak of pneumonia of unknown etiology in Wuhan City was initially reported to WHO on December 31, 2019. Chinese health authorities have confirmed more than 40 infections with a novel coronavirus as the cause of the outbreak. Reportedly, most patients had epidemiological links to a large seafood and animal market. The market was closed on January 1, 2020. Currently, Chinese health authorities report no community spread of this virus, and no transmission among healthcare personnel caring for outbreak patients. No additional cases of infection with 2019-nCoV have been identified in China since January 3, 2020.

On January 13, 2020 public health officials in Thailand confirmed detection of a human infection with 2019-nCoV in a traveler from Wuhan, China. This was the first confirmed case of 2019-nCoV documented outside China. On January 17, 2020 a second case was confirmed in Thailand, also in a returned traveler from Wuhan City. On January 15, 2020 health officials in Japan confirmed 2019-nCoV infection in a returned traveler from Wuhan City. These persons had onset dates after January 3, 2020. These cases did not report visiting the large seafood and animal market to which many cases in China have been linked.

On January 11, 2020, CDC updated the level 1 travel health notice ("practice usual precautions") for Wuhan City, Hubei Province, China with additional information (originally issued on January 6, 2020): https://wwwnc.cdc.gov/travel/notices/watch/novel-coronavirus-china.

Recommendations for Healthcare Providers

Limited information is available to characterize the spectrum of clinical illness associated with 2019-nCoV. No vaccine or specific treatment for 2019-nCoV infection is available; care is supportive.

The CDC clinical criteria for a 2019-nCoV patient under investigation (PUI) have been developed based on what is known about MERS-CoV and SARS-CoV and are subject to change as additional information becomes available.

Healthcare providers should obtain a detailed travel history for patients being evaluated with fever and acute respiratory illness. CDC guidance for evaluating and reporting a PUI for MERS-CoV remains unchanged.

Criteria to Guide Evaluation of Patients Under Investigation (PUI) for 2019-nCoV

Patients in the United States who meet the following criteria should be evaluated as a PUI in association with the outbreak of 2019-nCoV in Wuhan City, China.

1) Fever[1] AND symptoms of lower respiratory illness (e.g., cough, shortness of breath)
–and in the last 14 days before symptom onset,

- History of travel from Wuhan City, China
  -or-
- Close contact[2] with a person who is under investigation for 2019-nCOV while that person was ill.

2) Fever1 OR symptoms of lower respiratory illness (e.g., cough, shortness of breath)
–and in the last 14 days before symptom onset,

- Close contact[2] with an ill laboratory-confirmed 2019-nCoV patient.

The above criteria are also available at https://www.cdc.gov/coronavirus/2019-nCoV/clinical-criteria.html. The criteria are intended to serve as guidance for evaluation. Patients should be evaluated and discussed with public health departments on a case-by-case basis if their clinical presentation or exposure history is equivocal (e.g., uncertain travel or exposure).

Recommendations for Reporting, Testing, and Specimen Collection
Healthcare providers should **immediately** notify both infection control personnel at their healthcare facility and their local or state health department in the event of a PUI for 2019-nCoV. State health departments that have identified a PUI should immediately contact CDC's Emergency Operations Center (EOC) at 770-488-7100 and complete a 2019-nCoV PUI case investigation form available at https://www.cdc.gov/coronavirus/2019-ncov/downloads/pui-form.pdfpdf icon. CDC's EOC will assist local/state health departments to collect, store, and ship specimens appropriately to CDC, including during afterhours or on weekends/holidays. At this time, diagnostic testing for 2019-nCoV can be conducted only at CDC. Testing for other respiratory pathogens should not delay specimen shipping to CDC. If a PUI tests positive for another respiratory pathogen, after clinical evaluation and consultation with public health authorities, they may no longer be considered a PUI. This may evolve as more information becomes available on possible 2019 nCoV co-infections.

For biosafety reasons, it is not recommended to perform virus isolation in cell culture or initial characterization of viral agents recovered in cultures of specimens from a PUI for 2019-nCoV. To increase the likelihood of detecting 2019-nCoV infection, CDC recommends collecting and testing multiple clinical specimens from different sites, including all three specimen types—lower respiratory, upper respiratory, and serum specimens. Additional specimen types (e.g., stool, urine) may be collected and stored. Specimens should be collected as soon as possible once a PUI is identified regardless of time of symptom onset. Additional guidance for collection, handling, and testing of clinical specimens is available at https://www.cdc.gov/coronavirus/2019-nCoV/.

Interim Healthcare Infection Prevention and Control Recommendations for Patients Under Investigation for 2019-nCoV
Although the transmission dynamics have yet to be determined, CDC currently recommends a cautious approach to patients under investigation for 2019-nCoV (https://www.cdc.gov/coronavirus/2019-nCoV/clinical-criteria.html). Such patients should be asked to wear a surgical mask as soon as they are identified and be evaluated in a private room with the door closed, ideally an airborne infection isolation room if available. Healthcare personnel entering the room should use standard precautions, contact precautions, airborne precautions, and use eye protection (e.g., goggles or a face shield). Immediately notify your healthcare facility's infection control personnel and local health department.

Additional Infection Control Practices Resources

- Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html)

Notes
[1]Fever may not be present in some patients, such as those who are very young, elderly, immunosuppressed, or taking certain fever-lowering medications. Clinical judgment should be used to

guide testing of patients in such situations.
[2]Close contact with a person who is under investigation for 2019-nCOV.
Close contact is defined as—

a) being within approximately 6 feet (2 meters), or within the room or care area, of a novel coronavirus case for a prolonged period of time while not wearing recommended personal protective equipment or PPE (e.g., gowns, gloves, NIOSH-certified disposable N95 respirator, eye protection); close contact can include caring for, living with, visiting, or sharing a healthcare waiting area or room with a novel coronavirus case.
– or –
b) having direct contact with infectious secretions of a novel coronavirus case (e.g., being coughed on) while not wearing recommended personal protective equipment.

See CDC's Interim Healthcare Infection Prevention and Control Recommendations for Patients Under Investigation for 2019 Novel Coronavirus (https://www.cdc.gov/coronavirus/2019-nCoV/infection-control.html).

Data to inform the definition of close contact are limited. Considerations when assessing close contact include the duration of exposure (e.g., longer exposure time likely increases exposure risk) and the clinical symptoms of the person with novel coronavirus (e.g., coughing likely increases exposure risk as does exposure to a severely ill patient). Special consideration should be given to those exposed in healthcare settings.

For More Information
More information is available at at https://www.cdc.gov/coronavirus/2019-nCoV/index.html or by calling 800-CDC-INFO | (800-232-4636) | TTY: (888) 232-6348

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

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This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations.
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