

ADVISORY: Novel Coronavirus (2019-nCoV)

January 29, 2020

Background

The Centers for Disease Control and Prevention (CDC) is closely monitoring, and collaborating with the World Health Organization (WHO), on an outbreak caused by a novel coronavirus first identified in Wuhan, Hubei Province, China. Chinese authorities identified the new coronavirus (2019-nCoV), which has resulted in thousands of confirmed cases in China, including cases outside Wuhan, and in a growing number of countries. Officials announced the first U.S. case on Jan. 21, 2020 and four other confirmed infections since then. Investigations are ongoing, but some degree of person-to-person spread of 2019-nCoV is occurring in China. More cases are likely to be identified in the coming days, including more cases in the U.S.

Human coronaviruses¹ are common throughout the world. Human coronaviruses commonly cause mild to moderate illness. Two newer human coronaviruses, MERS-CoV and SARS-CoV, have been known to cause severe illness. A novel coronavirus, 2019-nCoV, emerged in 2019 and is causing concern.

What is 2019 Novel Coronavirus (2019-nCoV)?²

- Chinese authorities identified the new coronavirus originating in Wuhan, China.
- This virus has resulted in thousands of confirmed cases with over 100 reported deaths, including cases outside Wuhan, with additional cases being identified in a growing number of countries internationally. There have been five confirmed cases in the United States with additional cases under investigation.
- Clinical signs and symptoms include fever and symptoms of lower respiratory illness (e.g. cough or shortness of breath).
- Early on, many patients in the outbreak in Wuhan, China reportedly had some link to a large seafood and animal market, suggesting 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, though it's unclear how easily or sustainably this virus is spreading between people. Both MERS and SARS have been known to cause severe illness in people. The situation with 2019-nCoV is still unclear and evolving rapidly. While severe illness, including illness resulting in numerous deaths, has been reported in China, other patients have had milder illness and been discharged. Person-to-person transmission has been reported in health care workers who were caring for some of the ill people in China. Person-to-person spread in the United States has not yet been detected, but it could occur. Cases in health care settings, like hospitals, could also occur.

What are the health care infection control precautions for 2019-nCoV?³

Although the transmission dynamics have yet to be determined, CDC currently recommends a cautious approach to patients under investigation for 2019 Novel Coronavirus:

- 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.
- Health care personnel entering the room should use standard precautions, contact precautions, airborne precautions, and eye protection (e.g. goggles or a face shield). The health care facility's infection control personnel and local health department should be notified immediately.
- Meticulous hand hygiene and environmental hygiene play a key role in these isolation precautions.
- CDC has developed a real-time Reverse Transcription-Polymerase Chain Reaction (rRT-PCR) test that can diagnose 2019-nCoV. Currently, testing for this virus must take place at CDC, but in the coming days and weeks, CDC will share these tests with domestic and international partners.

What hand hygiene products are effective against 2019-nCoV?

Washing your hands often with soap and water is one of the best ways to avoid transmission of emerging pathogens. If soap and water aren't available, use an alcohol-based hand sanitizer. The Food and Drug Administration regulates claims on both medicated, antimicrobial soaps and on alcohol-based hand sanitizers. Claims related to efficacy against viruses are not allowed on any medicated, antimicrobial soaps nor on any alcohol-based hand sanitizers in the United States.

What disinfectants are effective against 2019-nCoV?

The Environmental Protection Agency (EPA) recognizes environmental surfaces as a vector for transmission of coronaviruses. The EPA has developed the "Guidance to Registrants: Process for making claims against emerging viral pathogens not on EPA-registered disinfectant labels".⁴ This document provides general guidance to disinfectant manufacturers and addresses public concerns on a process that can be used to identify effective disinfectants for use against emerging viral pathogens. It permits manufacturers to make limited claims about their product's efficacy against such pathogens once the EPA confirms the product meets the eligibility criteria outlined in the guidance. A summary of the criteria required to make such claims is outlined in the table below. Review the full guidance for more information.

Guidance to Registrants: Process for making claims against emerging viral pathogens not on EPA-Registered disinfectant labels⁴

An eligible product should meet both of the following criteria:

1. The product is an EPA-registered, hospital/health care or broad-spectrum disinfectant with directions for use on hard, porous or non-porous surfaces.*

2. The currently accepted product label (from an EPA registered product as described above in III.1) should have disinfectant efficacy claims against at least one of the following viral pathogen groupings:

a) A product should be approved by EPA to inactivate at least one large or one small non-enveloped virus to be eligible for use against an enveloped emerging viral pathogen.

b) A product should be approved by EPA to inactivate at least one small, nonenveloped virus to be eligible for use against a large, non-enveloped emerging viral pathogen.

c) A product should be approved by EPA to inactivate at least two small, nonenveloped viruses with each from a different viral family to be eligible for use against a small, non-enveloped emerging viral pathogen.

* Product Performance Test Guidelines: OCSPP 810.2200 Disinfectants for Use on Hard Surfaces – Efficacy Data Recommendations [EPA 712-C-07-074].

What work is still ongoing?

- CDC, working with the Department of Homeland Security, is now screening all passengers on direct and connecting flights from Wuhan, China to t20 main ports of entry in the United States. mining the origin of the virus, which could lead to recommended guidance related to transmission from animals.
- Determining disease progression among ill people and how they may have acquired the infection.
- Determining the frequency and likelihood of person-to-person transmission. Especially whether transmission occurs during the incubation period.

References

1. Centers for Disease Control and Prevention, Coronavirus Summary. <https://www.cdc.gov/coronavirus/index.html>
2. Centers for Disease Control and Prevention, 2019 Novel Coronavirus. <https://www.cdc.gov/coronavirus/2019-nCoV/summary.html>

3. Centers for Disease Control and Prevention, 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>
4. Environmental Protection Agency, Emerging Viral Pathogen Guidance for Antimicrobial Pesticides. <https://www.epa.gov/pesticide-registration/emerging-viral-pathogen-guidance-antimicrobial-pesticides>

For More Information

Centers for Disease Control and Prevention, Coronavirus Summary.

<https://www.cdc.gov/coronavirus/index.html>

Food and Drug Administration Landing Page

<https://www.fda.gov/emergency-preparedness-and-response/mcm-issues/novel-coronavirus-2019-ncov>

World Health Organization, Coronavirus. <https://www.who.int/health-topics/coronavirus>

Occupational Safety and Health Administration, 2019 Novel Coronavirus.

https://www.osha.gov/SLTC/novel_coronavirus/