

## CORONAVIRUS DISEASE 2019 (COVID-19)

### REPORTING INFORMATION

- **Class A with special reporting requirements: *Confirmed and Probable* cases** of COVID-19 should be reported **within twenty-four hours** to the local health district in which the person resides. If patient residence is unknown, report to the local public health department in which the reporting health care provider or laboratory is located.
- Reporting Form(s) and/or Mechanism:
  - *Report within twenty-four (24) hours.*
  - The local health department should enter the case into the Ohio Disease Reporting System (ODRS) within 24 hours after receiving a report.
  - The Centers for Disease Control and Prevention (CDC) [Human Infection with 2019 Novel Coronavirus Case Report Form](#) is available for use to assist in local disease investigation. Information collected from the form should be entered into ODRS. If requested, the form can be uploaded to the ODRS record.
- Key information for ODRS reporting includes: illness onset date; sensitive occupation (including location); race and ethnicity (critical to address disparities); clinical information; hospitalization status; lab results, collection date and test type; signs/symptoms/comorbidities; known contact or linkage to COVID-19 cases; travel history; membership in a risk cohort as defined below.

### AGENT

SARS-CoV-2 is a novel species of the *Coronaviridae* virus family, Beta-CoV lineage B.d

**Infectious Dose:** Unknown

### CASE DEFINITION

#### Clinical Criteria

To meet the clinical criteria, a patient must meet either criteria 1 and 3, or criteria 2 and 3 below.

1)

- At least two of the following symptoms: fever (measured or subjective), chills, rigors, myalgia, headache, sore throat, nausea or vomiting, diarrhea, fatigue, congestion or runny nose
- OR
- At least one of the following symptoms: cough, shortness of breath, difficulty breathing, new olfactory disorder, new taste disorder

**OR**

2) Severe respiratory illness with at least one of the following:

- Clinical or radiographic evidence of pneumonia, or
- Acute respiratory distress syndrome (ARDS)

**AND**

3) No alternative more likely diagnosis

### **Laboratory Criteria**

Laboratory evidence using a method approved or authorized by the U.S. Food and Drug Administration (FDA) or designated authority:

#### Confirmatory laboratory evidence:

- Detection of SARS-CoV-2 RNA in a clinical or autopsy specimen using a molecular amplification detection test

#### Presumptive laboratory evidence:

- Detection of SARS-CoV-2 by antigen test in a respiratory specimen

#### Supportive laboratory evidence:

- Detection of specific antibody in serum, plasma, or whole blood
- Detection of specific antigen by immunocytochemistry in an autopsy specimen

### **Epidemiologic Linkage**

One or more of the following exposures in the 14 days before onset of symptoms (or, for asymptomatic persons, the 14 days before a positive test for SARS-CoV-2 was collected):

- Close contact\* with a person who is lab-confirmed with COVID-19 disease

**OR**

- Close contact\* with a person with:
  - Clinically compatible illness **AND**
  - Linkage to a confirmed case of COVID-19 disease

**OR**

- Member of a risk cohort as defined by public health authorities during an outbreak.
  - In Ohio, the following are identified as risk cohorts:
    - Hospitalized patients
    - Healthcare workers
    - First responders (including law enforcement, fire services, emergency medical services, and emergency management officials)
    - Residents of long-term care facilities
    - Members of other congregate settings (e.g., group homes, schools, colleges or universities, correctional and detention facilities)

\*Close contact is generally defined as being within 6 feet for a period of 15 minutes or more depending upon the exposure level and setting. Please see section titled **Contacts** on page 6 for additional details. Data are insufficient to precisely define the duration of exposure that constitutes prolonged exposure and thus a close contact.

### **Vital Records Criteria**

- A death certificate that lists COVID-19 disease or SARS-CoV-2 as an underlying cause of death or a significant condition contributing to death.

## CASE CLASSIFICATION

### Suspected:

- Meet supportive laboratory evidence with no prior history of being a confirmed or probable case.
- Meets presumptive laboratory evidence and does not otherwise meet criteria for a probable case.

### Probable:

- Meets clinical criteria **AND** epidemiologic linkage with no confirmatory laboratory testing performed for SARS-CoV-2; OR
- Meets presumptive laboratory evidence **AND** either clinical criteria **OR** epidemiologic linkage; OR
- Meets vital records criteria with no confirmatory laboratory evidence for SARS-CoV-2.

### Confirmed:

- Meets confirmatory laboratory evidence. NOTE: Asymptomatic infections are reportable as confirmed cases.

### Not a Case:

- This status will not generally be used when reporting a case, but may be used to reclassify a report if investigation revealed that it was not a case.
- For surveillance purposes, records should be classified as "Not a Case" if SARS-CoV-2 RNA in a clinical specimen is not detected using a confirmatory laboratory test and the confirmatory test was collected within 1 week of symptom onset or within 2 days following a rapid antigen test. For considerations related to public health management, please see section titled **Public Health Management** on page 5.

### **Criteria to Distinguish a New Case from an Existing Case**

- Not applicable until more data are available: at this time, there has been minimal evidence for re-infection among persons with a prior confirmed COVID-19 infection.
- For surveillance purposes, additional positive test results following an initial positive should continue to be added to the same record in ODRS.
- Considerations for public health management of persons with persistent or recurrent positive tests are available in [CDC's Clinical Questions about COVID-19: Questions and Answers](#).

## **SIGNS AND SYMPTOMS**

Symptoms of COVID-19 are non-specific and the disease presentation can range from no symptoms (asymptomatic) to severe pneumonia and death. COVID-19 presents as a mild to moderate illness for approximately 80% of individuals evaluated with the disease; 15% of individuals experience severe illness requiring supplemental oxygen; and 5% experience critical illness requiring mechanical ventilation. People with COVID-19 generally develop signs and symptoms, including mild respiratory symptoms and fever ~5 days after infection (mean incubation period 4-5 days, range 1-14 days).

## **DIAGNOSIS**

Patients who present with symptoms consistent with COVID-19 should also be evaluated for common causes of community-acquired pneumonia (e.g., influenza A and B viruses, respiratory syncytial virus, *Streptococcus pneumoniae*, and *Legionella pneumophila*). This

evaluation should be based on clinical presentation and epidemiologic and surveillance information.

If infection with COVID-19 is suspected based on current clinical and epidemiological screening criteria recommended by public health authorities, healthcare providers should consider testing clinical specimens.

Testing for other respiratory pathogens should not delay shipping of specimens for COVID-19 testing for suspected cases. If a suspected case tests positive for another respiratory pathogen, after clinical evaluation and consultation with public health authorities, they may no longer be considered a suspect case. This may evolve as more information becomes available on possible COVID-19 co-infections.

If testing is to be performed at ODH Laboratory, use nasopharyngeal swabs in viral transport media and include the [ODH Laboratory Microbiology Specimen Submission Form](#) (HEA 2530) with the specimen.

For initial diagnostic testing for SARS-CoV-2 (COVID-19), CDC recommends collecting an upper respiratory specimen. The following are acceptable specimens:

- Nasopharyngeal (NP) specimen collected by a healthcare professional, or
- Oropharyngeal (OP) specimen collected by a healthcare professional, or
- Nasal mid-turbinate (NMT) swab collected by a healthcare professional or by a supervised onsite self-collection (using a flocked tapered swab), or
- Anterior nares (nasal swab; NS) specimen collected by a healthcare professional or by onsite or home self-collection (using a flocked or spun polyester swab), or
- Nasopharyngeal wash/aspirate or nasal wash/aspirate (NW) specimen collected by a healthcare professional

Specimens should be collected as soon as possible once a suspected case is identified, regardless of the time of symptom onset. Maintain proper infection control when collecting specimens. Further guidance for collection, handling, and testing of clinical specimens is available at [Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Persons for Coronavirus Disease 2019 \(COVID-19\)](#)

Virus isolation in cell culture and initial characterization of viral agents recovered in cultures of COVID-19 specimens are NOT recommended at this time, except at a BSL3 facility.

**See also:**

- [Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 \(COVID-19\)](#)

**Considerations for Interpreting Test Results and Public Health Management**

Information on the performance of rapid antigen tests for SARS-CoV-2 and evaluation of results, including considerations for when confirmatory testing might be warranted, is available in CDC's [Interim Guidance for Rapid Antigen Testing for SARS-CoV-2](#). Guidance specific to antigen testing in nursing homes is available in CDC's [Considerations for Use of SARS-CoV-2 Antigen Testing in Nursing Homes](#).

The "gold standard" for clinical diagnostic detection of SARS-CoV-2 remains RT-PCR; these tests are highly sensitive and specific, but a false negative result is possible.

- When a confirmatory test is negative but epidemiologic linkage and clinical criteria are met, persons should follow isolation protocols for COVID-19 unless an alternative

etiology is identified after evaluation by a healthcare provider. If an alternative etiology is identified, persons should follow quarantine protocols for COVID-19 due to epidemiologic linkage.

- For asymptomatic persons, when a confirmatory test is negative but epidemiologic linkage criteria are met, persons should follow quarantine protocols for COVID-19.

## **EPIDEMIOLOGY**

Chinese health officials identified COVID-19 in Wuhan City, Hubei Province, China in December 2019 based on testing of individuals with severe pneumonia. On January 21, 2020, the United States announced its first infection with COVID-19 detected in a traveler returning from Wuhan. On March 9, 2020, Ohio reported its first COVID-19 cases. For an updated list of COVID-19 travel recommendations by country, please visit the CDC website [here](#).

### **Source**

Early on, many of the patients at the epicenter of the outbreak in Wuhan, Hubei Province, China had some link to a large seafood and live animal market, suggesting animal-to-person spread. Later, a growing number of patients reportedly did not have exposure to animal markets, indicating person-to-person spread. Person-to-person spread was subsequently reported outside Hubei and in countries outside China, including in the United States. Most international destinations now have ongoing community spread with the virus that causes COVID-19, as does the United States.

### **Occurrence**

COVID-19 is widespread through almost every country in the world.

### **Mode of Transmission**

COVID-19, like other coronaviruses, is thought to mainly spread from person-to-person between people who are in close contact with one another (within about 6 feet) through respiratory droplets produced when an infected person coughes, sneezes, talks, or breathes. While [evidence suggests](#) that COVID-19 can sometimes be spread by airborne transmission, it most commonly spreads during close contact. COVID-19 may be spread by people who are not showing symptoms. The precise ways the virus spreads is an area of continued study.

### **Period of Communicability**

[Available data](#) indicate that persons with mild to moderate COVID-19 remain infectious for no longer than 10 days after symptom onset. Persons with more severe to critical illness or severe immunocompromise likely remain infectious no longer than 20 days after symptom onset. Patients are believed to be contagious two days prior to symptom onset (or, for persons who tested positive for COVID-19 but have not had any symptoms, the two days before the date the first positive viral test was collected).

### **Incubation Period**

The incubation period for COVID-19 is thought to extend to 14 days, with a median time of 4-5 days from exposure to symptom onset.

## **PUBLIC HEALTH MANAGEMENT**

### **Case**

#### Investigation

Healthcare providers/Local health departments should continue to routinely ask about travel history and healthcare facility exposure and consider a diagnosis of COVID-19 infection in persons who present with symptoms consistent with COVID-19.

Detailed guidance on case investigation and contact tracing is available on the CDC website. See [Contact Tracing](#).

#### Treatment

There are no drugs or other therapeutics presently approved by the U.S. Food and Drug Administration (FDA) to prevent or treat COVID-19. Current clinical management includes infection prevention and control measures and supportive care, including supplemental oxygen and mechanical ventilatory support when indicated. The National Institutes of Health have published [interim guidelines for the medical management of COVID-19](#).

#### Isolation

Patients with suspected or confirmed SARS-CoV-2 infection should be asked to wear a facemask or cloth face covering, if tolerated, and be evaluated in a private room with the door closed and a dedicated bathroom. Airborne infection isolation rooms (AIIRs) should be reserved for patients who will be undergoing aerosol generating procedures. Healthcare personnel entering the room should use standard precautions, contact precautions, airborne precautions, and use eye protection (e.g., goggles or a face shield). Guidance on isolation measures for patient in healthcare settings is available in CDC's [Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the COVID-19 Pandemic](#). Immediately notify your healthcare facility's infection control personnel and local health department.

Ill people who are being evaluated for SARS-CoV-2 infection and do not require hospitalization for medical reasons may be cared for and isolated in their home. Isolation is defined as the separation or restriction of activities of an ill person with a contagious disease from those who are well. Guidance on home care and isolation measures is available in CDC's [Interim Guidance for Implementing Home Care of People Not Requiring Hospitalization for COVID-19](#). Most people with COVID-19 have mild illness and can recover at home without medical care. Ill individuals should stay home, except to get medical care and should not visit public areas. Visit the CDC page for [What to Do If You Are Sick](#) for more guidance on isolation.

The decision to monitor a patient in the inpatient or outpatient setting should be made on a case-by-case basis. This decision will depend on the clinical presentation, requirement for supportive care, potential risk factors for severe disease, and the ability of the patient to self-isolate at home. Patients with [risk factors for severe illness](#) should be monitored closely given the possible risk of progression to severe illness in the second week after symptom onset.

#### Discontinuation of Isolation

For guidance on discontinuation of isolation and return to work criteria, please see:

- [Discontinuation of Isolation for Persons with COVID-19 Not in Healthcare Settings](#)
- [Discontinuation of Transmission-Based Precautions and Disposition of Patients with COVID-19 in Healthcare Settings](#)
- [Criteria for Return to Work for Healthcare Personnel with SARS-CoV-2 Infection](#)

Detailed guidance on patients with persistent or recurrent positive tests is available on the CDC website. [See Clinical Questions about COVID-19: Questions and Answers.](#)

## **Contacts**

Close contact is defined as: someone who was within 6 feet of an infected person for at least 15 minutes (total/cumulative time) starting from 2 days before illness onset (or, for asymptomatic clients, 2 days prior to positive specimen collection) until the time the patient is isolated. Additionally, a person would be considered a close contact if they provided care in the home to someone who is sick with COVID-19, had direct physical contact with them (e.g., hugged or kissed them), shared eating or drinking utensils, or had unprotected direct contact with infectious secretions or excretions of the infected person (e.g., was coughed/sneezed on, touched used tissues with a bare hand). Data are limited to precisely define prolonged exposure to determine "close contact", however 15 minutes of close exposure can be used as an operational definition for contact investigation. Factors to consider when defining close contact include proximity, the duration of exposure (e.g., longer exposure time likely increases exposure risk) and whether the individual has symptoms (e.g., coughing likely increases exposure risk). At this time, differential determination of close contact for those using cloth face coverings or barriers (e.g., plastic dividers) is not recommended.

In healthcare settings, close contact for healthcare exposures is defined as follows: a) being within approximately 6 feet of a person with COVID-19 for a prolonged period of time (such as caring for or visiting the patient; or sitting within 6 feet of the patient in a healthcare waiting area or room) while not wearing [recommended personal protective equipment or PPE \(e.g., gowns, gloves, NIOSH-certified disposable N95 respirator, eye protection\)](#); or b) having unprotected direct contact with infectious secretions or excretions of the patient (e.g., being coughed/sneezed on, touching used tissues with a bare hand). It is reasonable to consider an exposure of 15 minutes or more as prolonged. However, any duration should be considered prolonged if the exposure occurred during performance of an aerosol generating procedure.

As part of investigation of confirmed cases, in consultation with a state or local health department, testing is recommended for close contacts of persons with SARS-CoV-2 infection because of the potential for asymptomatic and pre-symptomatic transmission. Persons with known or suspected exposure to SARS-CoV-2 should continue to follow quarantine protocols for COVID-19 even if they are tested and results are negative.

Evaluation and management of close contacts of a case should be discussed with state and local health departments. See CDC [Public Health Guidance for Community-Related Exposure](#), [Public Health Guidance for Potential COVID-19 Exposure Associated with International or Domestic Travel](#) and [Interim U.S. Guidance for Risk Assessment and Work Restrictions for Healthcare Personnel with Potential Exposure to COVID-19](#).

Close contacts of a confirmed case who are ill and do not require hospitalization for medical reasons may, in consultation with the state and local health department, be cared for and isolated in their home while being evaluated for COVID-19 infection.

Close contacts of a confirmed or probable case should be quarantined for 14 days after their last contact with a case. When COVID-19 is suspected, prompt initiation of quarantine protocols for close contacts may be warranted to prevent the potential spread of SARS-CoV-2 while the individual with suspected COVID-19 awaits test results or evaluation by a healthcare provider.

## **Outbreaks**

Please follow existing ODH guidance on outbreaks in Section 3 of the IDCM.

Outbreak resolution is defined as: No new symptomatic/asymptomatic probable or confirmed COVID-19 cases after 28 days (two incubation periods) have passed since the last case's onset date or specimen collection date (whichever is later).

## **Prevention and Control**

The best way to prevent illness is to avoid being exposed to COVID-19. The virus that causes COVID-19 is thought to spread mainly from person-to-person through respiratory droplets produced when an infected person coughs, sneezes, talks, or breathes. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. Spread is more likely between people who are in close contact with one another (within about 6 feet). To prevent illness:

- [Wash hands](#) often with soap and water for at least 20 seconds especially after you have been in a public place or after blowing your nose, coughing or sneezing.
- If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands and rub them together until they feel dry.
- Avoid touching your eyes, nose, and mouth with unwashed hands.

## **Additional Resources**

[CDC Coronavirus \(COVID-19\)](#)

[Evaluating and Testing Persons for Coronavirus Disease 2019 \(COVID-19\)](#)

[CDC Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease \(COVID-19\)](#)

[CDC Information for Pediatric Healthcare Providers](#)

[Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Persons for Coronavirus Disease 2019 \(COVID-19\)](#)

[Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 \(COVID-19\)](#)

[Infectious Diseases Society of America Guidelines on the Treatment and Management of Patients with COVID-19](#)

[WHO Clinical management of severe acute respiratory infection when COVID-19 is suspected](#)