COVID-19

Also known as
Severe Acute Respiratory Syndrome Coronavirus 2 or SARS-CoV-2

Investigation Guidance for New Jersey Local Health Departments

June 20, 2020
COVID-19

1 THE DISEASE AND ITS EPIDEMIOLOGY

A. Etiologic Agent

COVID-19 is the infectious disease caused by the most recently discovered coronavirus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered coronavirus causes coronavirus disease COVID-19, which on March 11, 2020, the World Health Organization (WHO) declared a pandemic.

B. Clinical Description

Common symptoms of COVID-19 include fever, cough, and shortness of breath. Other combinations of symptoms have also been reported, including chills, headache, myalgia, sore throat, and a new loss of taste or smell. Symptoms are mild for most people and begin gradually. Studies have documented infection in patients who never develop symptoms (asymptomatic) and in patients not yet symptomatic (pre-symptomatic). Since asymptomatic persons are not routinely tested, the prevalence of asymptomatic infection and detection of pre-symptomatic infection is not well understood and may be more prevalent than previously expected. WHO reports that data suggest that 80% of infections are mild or asymptomatic, 15% are severe infection, requiring oxygen and 5% are critical infections, requiring ventilation (https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200306-sitrep-46-covid-19.pdf?sfvrsn=96b04adf_4).

Atypical presentations have been described and older adults and persons with medical comorbidities may have delayed presentation of fever and respiratory symptoms. Lymphopenia, neutrophilia, elevated serum alanine aminotransferase and aspartate aminotransferase levels, elevated lactate dehydrogenase, high CRP, and high ferritin levels may be associated with greater illness severity. Most people (about 80%) recover without needing treatment, but approximately 1 out of 6 people infected becomes seriously ill and develops difficulty breathing. Older people, and those with underlying medical conditions such as heart conditions, pulmonary disease or diabetes, are more likely to develop serious illness. The clinical spectrum ranges from mild disease with non-specific signs and symptoms of acute respiratory illness, to severe pneumonia with respiratory failure and septic shock. Treatment for COVID-19 is supportive care.

C. Reservoirs

Much is unknown about COVID-19. Current knowledge is largely based on what is known about similar coronaviruses. Coronaviruses are a large family of viruses that are common in many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses
can infect people and then spread between people, such as with MERS-CoV, SARS-CoV, and now with SARS-CoV-2, the virus that causes COVID-19.

The SARS-CoV-2 virus is a betacoronavirus, like MERS-CoV and SARS-CoV and is thought to originate in bats. The sequences from U.S. patients are similar to the one that China initially posted, suggesting a likely single, recent emergence of this virus from an animal reservoir.

**D. Mode of Transmission**

Based on what is currently known about COVID-19, spread is thought to occur mostly from person-to-person via respiratory droplets among close contacts. Close contact is defined as:

a) Being within approximately 6 feet of a COVID-19 case for a prolonged period of time (≥ 10 minutes); OR

b) Direct contact with infectious secretions from a patient with COVID-19. Infectious secretions may include sputum, serum, blood, and respiratory droplets (e.g., being coughed or sneezed on).

Given the growing evidence of transmission risk from asymptomatic or pre-symptomatic persons, the period of exposure risk starts at 48 hours before symptom onset. The risk of transmission is thought to be greatest when patients are symptomatic.

Transmission of novel coronavirus to persons from surfaces contaminated with the virus has not been documented, but current evidence suggests that COVID-19 may remain viable for hours to days on surfaces made from a variety of materials.

At this time, the risk of COVID-19 spreading from animals to people is considered to be low. It appears that the virus that causes COVID-19 can spread from people to animals in some situations. A small number of pets worldwide, including cats and dogs, have been reported to be infected with the virus that causes COVID-19, mostly after close contact with people with COVID-19.

**E. Incubation Period**

Existing literature regarding SARS-CoV-2 and other coronaviruses suggest that the incubation period may range from 2–14 days with a median of 4-5 days.

**F. Period of Communicability or Infectious Period**

For an emerging pathogen like SARS-CoV-2, the patterns and duration of illness and infectivity have not been fully described. However, available data indicate that shedding of SARS-CoV-2 RNA in upper respiratory specimens declines after onset of symptoms. At this time, replication-competent virus has not been successfully cultured more than 9 days after onset of illness. The statistically estimated likelihood of recovering replication-competent virus approaches zero by 10 days (CDC unpublished data, Wölfel 2020, Arons 2020). After clinical recovery, many patients do not continue to shed SARS-CoV-2 viral RNA. Among recovered patients with detectable RNA
Communicable Disease Service Manual

in upper respiratory specimens, concentrations of RNA after 3 days are generally in ranges where virus has not been reliably cultured by CDC. Infectious virus has not been cultured from urine or reliably cultured from feces (CDC unpublished data, Midgely 2020, Wölfel 2020); these potential sources pose minimal if any risk of transmitting infection and any risk can be sufficiently mitigated by good hand hygiene.

G. Epidemiology

Coronavirus disease (COVID-19) is caused by SARS-COV2 and has been declared a pandemic. Initially, 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 that this is likely the zoonotic origin of COVID-19. Later, the virus spread person-to-person, and was subsequently reported outside Hubei and in countries outside China, including in the United States. Many countries have ongoing community spread with the virus that causes COVID-19, as do many parts of the United States. The largest number of cases in New Jersey had illness onset in early to mid-April 2020. Initially, cases were concentrated in the northeastern part of the state, but each county in the state has been impacted. New Jersey COVID-19 data is posted online at https://www.nj.gov/health/cd/topics/covid2019_dashboard.shtml & https://www.state.nj.us/health/cd/topics/ncov.shtml.

2 CASE DEFINITION

INDIVIDUAL CASES

A. Clinical Criteria

At least two of the following symptoms: fever (measured or subjective), chills, rigors, myalgia, headache, sore throat, new olfactory and taste disorder(s)

OR

At least one of the following symptoms: cough, shortness of breath, or difficulty breathing

OR

Severe respiratory illness with at least one of the following:

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

AND
No alternative more likely diagnosis

B. Laboratory Criteria

Laboratory evidence using a method approved or authorized by the FDA or designated authority*:

Confirmatory laboratory evidence:

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

Presumptive laboratory evidence:

- Detection of specific antigen in a clinical specimen.

C. Epidemiologic Linkage

One or more of the following exposures in the 14 days before onset of symptoms:

- Close contact** with a confirmed or probable case of COVID-19 disease; or
- Close contact** with a person with:
  - clinically compatible illness AND
  - linkage to a confirmed case of COVID-19 disease.
- Member of a risk cohort as defined by public health authorities during an outbreak.

**Close contact is defined as being within 6 feet for at least a period of 10 minutes. In healthcare settings, this may be defined as exposures of greater than a few minutes or more. Data are insufficient to precisely define the duration of exposure that constitutes prolonged exposure and thus a close contact.

D. Vital Records Criteria

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

E. Case Classification

Confirmed:

- Meets confirmatory laboratory evidence.

Probable:

- Meets clinical criteria AND epidemiologic evidence with no confirmatory laboratory testing performed for COVID-19.
Communicable Disease Service Manual

- Meets presumptive laboratory evidence AND either clinical OR epidemiologic linkage criteria.
- Meets vital records criteria with no confirmatory laboratory testing performed for COVID-19

Possible:

- Any case that has an inconclusive or equivocal laboratory result for COVID-19. Upon subsequent testing, these individuals may be moved to another case status***.

Not a case:

- Any case that has a negative (or invalid) laboratory result for COVID-19 (without another positive result).

* Depending on the laboratory performing the test, positive results may be reported as positive, presumptive positive, reactive, or detected.

*** Indeterminate, inconclusive, or equivocal test results: Advise the physician to submit another specimen for testing; in the interim (or if additional testing is not provided), treat cases as confirmed for the purposes of public health follow-up (isolation, quarantine, social distancing, etc.), but keep case status as POSSIBLE.

OUTBREAKS (Communal Living Facilities – report confirmed & suspect outbreaks)

Confirmed COVID-19 Outbreak:

- One laboratory-confirmed case in a resident or staff member along with other cases of respiratory illnesses on the unit;

Suspect COVID-19 Outbreak:

- A sudden increase over the normal background rate of acute respiratory illness (ARI)* cases, with or without documented fever (temperature ≥ 100°F OR 2° above the established baseline for that resident).

Outbreaks are considered concluded when there are no symptomatic/asymptomatic probable or confirmed COVID-19 cases after 28 days (2 incubation periods) has passed since the last case’s onset date or specimen collection date (whichever is later).

*ARI includes any two of the following symptoms: fever, sore throat, cough, rhinorrhea, and nasal congestion in the absence of a known cause (e.g., seasonal allergies, COPD). Cases associated with an outbreak are considered “confirmed” if laboratory-positive; and “probable” if testing is not performed but with an epidemiologic link and compatible symptoms.
Note: Elderly or medically fragile persons may manifest atypical signs of respiratory virus infection and may not present with fever. An initial respiratory outbreak may become (after testing) a confirmed COVID-19 outbreak, an influenza outbreak, or it may remain a respiratory outbreak of unknown etiology.

COMMUNITY CLUSTERS (NON HOUSEHOLD)

Three or more individuals with laboratory-confirmed COVID-19 who are epidemiologically linked to each other but who do not share a common residence. This would include individuals who attended a common event or place and for whom disease occurrence is plausible (i.e., occurs within appropriate incubation period).

LABORATORY TESTING

Clinicians should use their judgment to determine if a patient has signs and symptoms compatible with COVID-19 and whether the patient should be tested. Most patients with confirmed COVID-19 have developed fever and/or symptoms of acute respiratory illness (e.g., cough, difficulty breathing). CDC priorities for COVID-19 testing: https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-criteria.html.

COVID-19 testing for symptomatic persons relies on molecular methods. In addition to traditional PCR tests, rapid molecular and antigen testing is increasingly available. A list of FDA Emergency Use Authorizations (EUA) for diagnostic tests is available at https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#covid19ivd. Molecular detection and rapid antigen testing are acceptable tests for the purpose of case detection and public health action.

Serology testing (e.g., IgG, IgA, IgM) for COVID-19 may be used to identify people who were previously infected with COVID-19. Antibodies in some persons can be detected within the first week of illness onset. SARS-CoV-2 infections are somewhat unusual because IgM and IgG antibodies arise nearly simultaneously in serum within 2 to 3 weeks after illness onset. Thus, detection of IgM without IgG is uncommon. How long IgM and IgG antibodies remain detectable following infection is not known. Recurrence of COVID-19 illness appears to be very uncommon, suggesting that the presence of antibodies could confer at least short-term immunity to infection with SARS-CoV-2. Consistent with this observation, experimental primary infection in primates and subsequent development of antibodies resulted in protection from reinfection after the primates were re-challenged. Additionally, antibody development in humans correlates with a marked decrease in viral load in the respiratory tract. Taken together, these observations suggest that the presence of antibodies may decrease a person’s infectiousness and offer some level of protection from reinfection. However, definitive data are lacking, and it remains uncertain whether individuals with antibodies (neutralizing or total) are protected against reinfection with SARS-CoV-2, and if so, what concentration of antibodies is needed to confer protection.
Serology testing should not be used to diagnose current COVID-19 infection since antibody responses to infection may take days to weeks to be detectable; a negative serologic test does not rule out active infection; and a positive serologic test may reflect prior infection with a human coronavirus other than SARS-CoV-2. Due to the time from illness onset to when sufficient antibodies are detectable through testing, it is likely that public health investigation and control measures would be of limited utility. Serological testing should currently not be used for case detection or public health action. Serologic test results should not be used to make decisions about grouping persons residing in or being admitted to congregate settings, such as schools, dormitories, or correctional facilities; and should not be used to make decisions about returning persons to the workplace. There should be no change in clinical practice or use of personal protective equipment (PPE) by health care workers and first responders who test positive for SARS-CoV-2 antibody. This guidance may change as additional information is known about these tests.

Specimens: CDC recommends collecting and testing an upper respiratory specimen. Acceptable specimens include:

- A nasopharyngeal (NP) specimen collected by a healthcare provider; or
- An oropharyngeal (OP) specimen collected by a healthcare provider; or
- A nasal mid-turbinate swab collected by a healthcare provider or by a supervised onsite self-collection (using a flocked tapered swab); or
- An anterior nares (nasal swab) specimen collected by a healthcare provider 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 provider.

When it is clinically indicated (e.g., those receiving invasive mechanical ventilation), a lower respiratory tract aspirate or bronchoalveolar lavage sample is also an option. Testing for SARS-CoV-2 is rapidly evolving. Check FDA’s SARS-CoV-2 page (https://www.fda.gov/medical-devices/emergency-situations-medical-devices/faqs-diagnostic-testing-sars-cov-2) for acceptable tests and collection methods. Clinicians should contact their reference lab to find out what specimen types are acceptable and if testing supplies are available. Alternately, clinicians can order testing supplies from their contracted medical supplier.


Testing availability: Testing for SARS-CoV-2 is available at many commercial laboratories, pharmacies, healthcare providers, county-sponsored clinics, and at PHEL. Testing at PHEL uses the CDC 2019-nCoV Real-Time RT-PCR Diagnostic Panel. If a test is ordered commercially, no public health approval process is required.

PHEL Testing Criteria: Public health testing (PHEL) is prioritized for vulnerable populations at greatest risk for adverse outcomes, those in high-risk professions, and testing associated with public health investigations, specifically:
• Hospitalized patients with COVID-compatible illness

• Persons with COVID-compatible illness who work, attend, or are residents of healthcare facilities (acute care, outpatient, long-term care), or other congregate settings (school or daycare facilities, homeless shelters, correctional facilities, etc.).

• Persons with COVID-compatible illness who are associated with clusters or outbreaks as identified by state/local health agencies.

**Requesting Testing:** For patients meeting public health testing criteria, acute care facilities requesting testing at PHEL should enter cases into CDRSS:

• Select disease subgroup 2019 NCOV;
• Enter medical facility (date of admission, if in ICU or on ventilator) and treating provider information;
• Enter signs and symptoms and complete ADDITIONAL REQUIREMENTS section;
• In the LABORATORY AND DIAGNOSTIC TEST INFORMATION section add the test “SARS CORONAVIRUS 2 RNA BY PCR” and add “NJPHEL” to the lab name;
• Include the CDRSS Case ID# as the “CDS Approval Number” on the PHEL SRD-1 form (*one SRD-1 form is required for each specimen*).
• Email the Virology group at Virology.PHEL@doh.nj.gov with the CDRSS # and the estimated delivery time of the specimens.

Providers and facilities not having access to CDRSS should contact their local health department, who should enter the case into CDRSS and issue the SRD-1 form to the provider/facility.

**PHEL Testing Results:** Results should be available 24-48 hours after PHEL receives the specimen(s) and are provided via fax to the submitting laboratory and reported electronically in CDRSS. If it has been > 4 days since the specimen was received at PHEL, contact the NJ Public Health and Environmental Laboratory-Virology Program at 609-530-8516 or virology.PHEL@doh.nj.gov.

**Current guidance on laboratory testing:**

• New Jersey COVID-19 Testing Guidelines:  

• New Jersey PHEL Technical Bulletin for COVID-19:  

• CDC:  

• FDA:  
4 PURPOSE OF SURVEILLANCE AND REPORTING

- To ensure that COVID-19 cases are quickly identified and appropriately isolated to prevent further disease transmission.
- To identify close contacts and provide recommendations on self-quarantine, social distancing, and movement restrictions, to prevent further disease transmission.
- To identify and manage contacts in high-concern settings, and that care for vulnerable populations, including in healthcare, long-term care, schools and daycare facilities, correctional facilities, and other congregate settings.
- To identify risk factors for exposure, severity, and outcomes to target prevention messaging for at-risk groups.
- To characterize clinical presentation and severe outcomes, so healthcare partners can plan for appropriate patient care.
- To provide epidemiological information to stakeholders and the public.

5 REPORTING PROCEDURES

A. COVID-positive cases

All healthcare providers, laboratories, and facilities performing testing for COVID-19 must report COVID-19-positive and negative laboratory-test results (PCR, antigen, serology) to public health authorities electronically through CDRSS. All reported cases must contain complete contact information for the patient and healthcare provider. Outpatient providers and administrators of other facilities should request COVID-19 Quick Start access to CDRSS and report all laboratory test results electronically into CDRSS. Facilities/providers with a large volume of test reports to report should contact CDRSS Admin personnel to discuss alternatives for electronic reporting: cdrs.admin@doh.nj.gov. In the interim, providers and facilities should notify the local health department (LHD) by telephone and the LHD should enter the information in CDRSS (with the exception of negative serology results for LHDs only). Persons with pending COVID-19 test results do not need to be entered in CDRSS.

B. COVID-associated deaths

Hospital administrators are asked to report COVID-19 associated deaths occurring within their facility electronically through CDRSS, including date of admission, date of discharge (date of death), if patient had pre-existing medical conditions (specify), if patient was in ICU, if on mechanical ventilation, date of death, and if the patient was associated with a long-term care facility or other known outbreak. Documentation in CDRSS serves as public health notification; phone calls are not needed. **If reporting staff don’t have timely access to CDRSS, administrators are asked to report COVID-19 associated deaths by telephone to their LHD. Information should still be entered into CDRSS as soon as is feasible.
Long-term care administrators, outpatient providers, and administrators of other facilities are asked to report COVID-19 associated deaths to their LHD by telephone. Reports should include deaths associated with a suspect or confirmed COVID-19 outbreak, even if the resident that died was not tested for COVID-19.

LHDs should immediately update CDRSS for all COVID-positive deaths, including date of death; if the patient had pre-existing medical conditions (specify); name of medical facility (if hospitalized); dates of admission and discharge (date of death), if patient was in ICU, if on mechanical ventilation, if patient was a resident of a long-term care facility (LTCF) or other communal living facility (specify name); and if this case is associated with a known outbreak (enter E#). Phone calls to NJDOH are not needed if the information is provided in CDRSS. For deaths associated with an outbreak, if the person meets the PROBABLE case definition, LHDs should enter these cases in CDRSS, even in the absence of laboratory confirmation and enter the appropriate outbreak E-number.

C. Suspect or Confirmed COVID-19 Outbreaks

LHDs should continue to report suspected or confirmed outbreaks of COVID-19 by telephone to NJDOH following standard reporting procedures.

D. Out-of-Jurisdiction Close Contacts

Within NJ: LHDs should enter information into CDRSS (contact tracing section), add address into the address tab, and grant access to that LHD. LHDs should also notify the contact’s LHD of the exposure, providing the CDRSS Case ID# for them to review. The LHD where the case resides should close the case once the investigation is complete.

Out-of-State: If close contacts are identified who live outside of NJ, notify NJDOH and provide the contact’s name, DOB, address, phone number and/or email, and date of last known exposure to the NJ confirmed case.

6 CASE INVESTIGATION

A. Investigation

1. Timely investigation of COVID-positive cases and identification of close contacts is critical to prevent further disease transmission. COVID-positive cases should be interviewed using the NJDOH COVID-19 Investigation Worksheet as a guide. Information should be entered into CDRSS. Worksheets should not be sent to NJDOH. The level of disease transmission in each jurisdiction and the availability of local resources will determine if public health efforts should focus on identifying areas of potential exposure, all close contacts, or high-concern contacts (e.g., healthcare, long-term care, other congregate settings with vulnerable populations). All close contacts should be identified and provided with information on self-isolation and/or quarantine. If local resources allow, LHDs may actively monitor close contacts to ensure
compliance with recommendations and to quickly identify additional cases. Has this case come in close contact with others during the infectious period (If yes, add contacts – by name)?

2. **Repeat Testing:** CDC recommends that either a symptom / time OR test-based strategy be used to discontinue isolation. CDS does not recommend routine re-testing once someone has cleared isolation unless new symptoms develop.

Persons who have a positive molecular SARS-CoV-2 test who are removed from isolation using an appropriate non-test-based strategy (symptom or time-based), and who have a repeat positive molecular test performed within 6 weeks of symptom onset (or date of initial positive test if asymptomatic), do not need an additional period of isolation. This only applies to people for whom isolation was initiated following detection of SARS-CoV-2 with a molecular test and who remain asymptomatic after completion of their isolation period. If a positive test is received after 6 weeks, the report should be investigated as a potential new COVID-19 case.

This guidance does not apply to people who had a positive antigen test; had a negative diagnostic test; or who develop new symptoms consistent with COVID-19. This guidance also does not apply to persons who are severely immunocompromised, persons working in, residing in, or who are cared for in inpatient healthcare settings, including long-term care facilities; or to persons working or residing in other congregate living settings. For these individuals, persons who re-test positive should be re-isolated from the date of the (repeated) positive test.

**B. Case Ascertainment and CDRSS Documentation**

- LHDs should investigate all positive laboratory reports (molecular or rapid antigen), implement timely control measures, and classify cases according to the case definition.

- LHDs should link all COVID-19 cases (and deaths) associated with an outbreak (lab-confirmed and clinically compatible with no test results) by entering the outbreak E# in these cases under the Outbreak Information section. COVID-19 outbreak associated cases without laboratory test results should be manually entered into CDRSS and linked using the Outbreak E#.

- LHDs should NOT investigate positive serology reports. If an existing case is in CDRSS, a new laboratory report should append to the case without changing case or report status. Disregard serology results and investigate/classify the case as per case definition (review type of laboratory test). If a new case is created with a positive serological laboratory test result only (no molecular or rapid antigen result), the report will be E-SORTED/E-CLOSED. If results from serology tests are received by fax (e.g., out-of-state laboratory), the LHD should enter **positive** results into CDRSS and classify as NOT A CASE/LHD CLOSED. Negative serology results do not need to be entered manually by LHDs.

**PROBABLE CASES**

- If LHDs become aware of cases meeting the PROBABLE case definition without laboratory evidence (meeting clinical and epidemiological criteria), they should be entered into CDRSS. Persons meeting epidemiological criteria are only those identified through public
health investigation – a known close contact or in the context of a known outbreak setting. For persons identified as a close contact in one CDRSS case, if the contact develops symptoms, the LHD should create a separate COVID-19 case for that person. If available, symptomatic close contacts should be considered for COVID-19 testing. Probable cases include cases identified as part of an outbreak that may not be tested for COVID-19. Classify per case definition.

- If a known close contact develops symptoms and meets the PROBABLE case definition, but then tests negative for COVID-19, assuming testing was performed close to the time of illness onset (not significantly before or after illness onset), the case status should be changed to NOT A CASE.

- If a LTCF resident meets the PROBABLE case definition as part of an outbreak, but tests negative for COVID-19, the LHD should review the timing of exposure, illness onset, and COVID-19 testing. If testing was performed close to the time of illness onset, the case status should be changed to NOT A CASE and the person should be removed from the line list/outbreak count.

- Deaths meeting PROBABLE criteria that are reported through the Electronic Death Reporting System (EDRS) (meeting vital records criteria) will be entered by CDS into CDRSS as PROBABLE/DHSS APPROVED. Due to the delay in receiving EDRS reports, the possibility of effective public health intervention is low. LHDs do NOT need to investigate death reports entered as PROBABLE/DHSS APPROVED.

- If COVID-19 test results are received post-mortem, the case status should be changed to CONFIRMED if tests are positive or changed to NOT A CASE if tests are negative (depending on timing of testing in relation to illness onset).

- Contact Tracing: Contact tracing should be performed on PROBABLE cases. If prioritization is needed due to high case volume, persons with presumptive laboratory evidence should take precedence. PROBABLE cases who haven't been tested for COVID-19 should be considered for testing if testing is available.
# C. Key CDRSS Fields Needed for COVID-19 Cases

<table>
<thead>
<tr>
<th>CDRSS Screen</th>
<th>Required Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Info</strong></td>
<td>For COVID-positive cases, select subgroup 2019 NCOV</td>
</tr>
<tr>
<td><strong>Patient Personal Information</strong></td>
<td>Race and ethnicity are important to understand how novel diseases are impacting New Jersey residents</td>
</tr>
<tr>
<td><strong>Addresses</strong></td>
<td>Include out-of-jurisdiction (within NJ) close contacts (or facilities) as an Additional Address to grant access to the case to the LHD where the close contact resides. Notify that LHD and provide the CDRSS Case ID#.</td>
</tr>
</tbody>
</table>
| **Clinical Status**               | - Illness onset date \[68x721\]  
- Was patient hospitalized (complete for both YES and NO answers) \[68x721\]  
- Pre-existing conditions (select NONE if applicable) \[68x721\]  
- Patient died (complete for YES and NO answers); if YES, add in date of death \[68x721\]  |
| **Medical Facility and Provider Information** | Patient Status  
For admitted patients (patient status = INPATIENT):  
- Date of admission AND discharge (if died, date of discharge = date of death) \[71x721\]  
- Was patient in ICU \[71x721\]  
- Was patient on ventilator \[71x721\]  |
| **Pregnancy**                     | Is patient pregnant                                                                                                                                     |
| **Risk Factors**                  | Complete all                                                                                                                                           |
| **Signs/Symptoms**                | - Enter responses for all default symptoms (YES and NO answers) \[71x721\]  
- SENSORY DEFICIT – write “taste” and/or “smell” in attribute field if applicable \[71x721\]  
- Add additional symptoms as needed \[71x721\]  
- Enter ASYMPTOMATIC if applicable \[71x721\]  |
| **Outbreak Information**          | Link cases associated with a known outbreak (E-Number)                                                                                               |
| **Contact Tracing**               | Did the patient have close contact with a laboratory-confirmed case, or an ill person epidemiologically linked to a lab-confirmed case, prior to the onset of symptom(s)? (If yes, add contacts – by case ID) \[71x721\]  
Has this case come in close contact with others during the infectious period? (If yes, add contacts – by name; include contact info, last exposure date, and HH/non-HH contact type) \[71x721\]  |
| **Additional Requirements**       | Complete all – these questions document high-concern exposures/contacts \[71x721\]  |
| **PUI – CDS Use Only**            | This section is for CDS use only. No LHD entry needed.                                                                                                 |
CONTROLLING FURTHER SPREAD

A. Isolation

COVID-positive symptomatic cases: Persons should be told to self-isolate, at home if symptoms are mild, or at a hospital if clinically indicated until —

1. At least 3 days (72 hours) have passed since recovery defined as resolution of fever without the use of fever-reducing medications AND improvement in respiratory symptoms (e.g., cough, shortness of breath); AND,

2. At least 10 days have passed since symptoms first appeared.

A test-based strategy can also be used when deciding to discontinue isolation precautions. Using this strategy, cases should be told to self-isolate until there is —

1. Resolution of fever without the use of fever-reducing medications; AND

2. Improvement in respiratory symptoms (e.g., cough, shortness of breath); AND

3. Negative results of an FDA Emergency Use Authorized molecular assay for COVID-19 from at least two consecutive respiratory specimens collected ≥24 hours apart (total of two negative specimens).

Persons who are severely immunocompromised (e.g., medical treatment with immunosuppressive drugs, bone marrow or solid organ transplant recipients, inherited immunodeficiency, poorly controlled HIV) may shed virus for an extended period of time after recovery. If feasible, a test-based strategy may be preferred for discontinuation of isolation precautions.

Note: It is advised to use one strategy (symptom or test-based) to discontinue isolation. CDS does not recommend routine re-testing once an individual clears isolation unless new symptoms develop.

Persons who have a positive molecular SARS-CoV-2 test who are removed from isolation using an appropriate non-test-based strategy (symptom or time-based), and who have a repeat positive molecular test performed within 6 weeks of symptom onset (or date of initial positive test if asymptomatic), do not need an additional period of isolation. This only applies to people for whom isolation was initiated following detection of SARS-CoV-2 with a molecular test and who remain asymptomatic after completion of their isolation period. If a positive test is received after 6 weeks, the report should be investigated as a potential new COVID-19 case.
This guidance does not apply to people who had a positive antigen test; had a negative diagnostic test; or who develop new symptoms consistent with COVID-19. This guidance also does not apply to persons who are severely immunocompromised, persons working in, residing in, or who are cared for in inpatient healthcare settings, including long-term care facilities; or to persons working or residing in other congregate living settings. For these individuals, persons who re-test positive should be re-isolated from the date of the (repeated) positive test.

COVID-positive asymptomatic cases: Persons who test positive for COVID-19 but who have not had any symptoms should self-isolate until 10 days have passed since the date of specimen collection and with no subsequent illness. Alternately, isolation can be discontinued after receiving negative results of an FDA Emergency Use Authorized molecular assay for COVID-19 from at least two consecutive respiratory specimens collected ≥24 hours apart (total of two negative specimens).

Pending COVID test results: Persons who are symptomatic should follow home isolation guidance until their test results are available. IF NEGATIVE for COVID-19 persons should stay home and practice social distancing until 72 hours after resolution of fever and symptom improvement. Home isolation should be based on the alternate diagnosis, if available.

Persons with COVID-19 compatible symptoms who are not tested: Persons should be advised to stay on home isolation and follow the same guidance as those who test positive.

References:


After returning to work, HCP should wear a facemask for source control at all times while in the healthcare facility until all symptoms are completely resolved or at baseline. A facemask for source control does not replace the need to wear an N95 or higher-level respirator (or other recommended PPE) when indicated, including when caring for patients with suspected or confirmed COVID-19. Of note, N95 or other respirators with an exhaust valve might not provide source control. After this time period, these HCP should revert to their facility policy regarding universal source control during the pandemic.

B. Contact Management

A close contact is defined as:
a) being within approximately 6 feet of a COVID-19 case for at least 10 consecutive minutes; OR

b) having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed or sneezed on).

Timing for identifying close contacts:

1. Contact with a symptomatic COVID-19 case (laboratory-confirmed or clinically compatible) starting from 48 hours before symptom onset until the case meets criteria for discontinuing home isolation, OR

2. Contact with an asymptomatic COVID-19 case (laboratory-confirmed) starting from 2 days prior to the date of specimen collection until the case meets criteria for discontinuing home isolation.

At this time, differential determination of close contact for those using fabric face coverings is not recommended.

Asymptomatic close contacts of persons with confirmed or suspected COVID-19 should be told to self-quarantine at home and monitor themselves for symptoms for 14 days since their last close contact with that person. Household contacts of someone with confirmed or suspected COVID should self-quarantine until the household member is off of home-isolation PLUS an additional 14 days.

If COVID-19 compatible symptoms develop during the 14-day quarantine, they should follow the guidance for isolation.

All close contacts: Close contacts should be identified and provided with information on self-isolation and/or quarantine. If local resources allow, LHDs should actively monitor close contacts to ensure compliance with recommendations and to quickly identify additional cases. NJDOH has guidance LHDs can send to close contacts describing these recommendations: https://nj.gov/health/cd/topics/covid2019_professionals.shtml.

High-concern contacts: LHDs should notify congregate settings when symptomatic close contacts are identified that impact on care of vulnerable populations, including healthcare facilities, long-term care facilities, and school and daycare settings. Those facilities should be notified of the isolation or quarantine recommendations for that close contact and asked about any suspected or confirmed COVID-19 cases.

Contacts of contacts: Testing, symptom monitoring or special management for people exposed to asymptomatic people with potential exposures to COVID-19 (such as in a household), i.e., “contacts of contacts;” is not recommended.

Previously diagnosed COVID cases and new exposure as a close contact: Since it isn’t known if prior COVID-19 infection confers immunity, for persons who previously tested positive for COVID-19, have discontinued isolation, and have resumed normal activities – if identified as a
close contact of another COVID-19 case, these individuals should follow the same guidance for self-quarantine as other close contacts.


C. Managing Special Situations

Healthcare Workers
Healthcare workers with COVID-19 should follow guidance provided to them by their occupational health team and their employer. NJDOH has online tools that healthcare facilities can use to assess exposure risk and implement employee isolation or quarantine policies: https://www.state.nj.us/health/cd/topics/covid2019_healthcare.shtml

Critical Infrastructure Workers
To ensure continuity of operations of essential functions, CDC advises that critical infrastructure workers may be permitted to continue work following potential exposure to COVID-19, provided they remain asymptomatic and additional precautions are implemented to protect them and the community. Employers should screen exposed but asymptomatic essential workers for temperature and symptoms, ideally before entry into the facility; staff should monitor for symptoms, wear a mask at all times, and maintain social distancing while in the workplace for 14 days after last exposure; and there should be routine cleaning and disinfection of all workplace areas. https://www.cdc.gov/coronavirus/2019-ncov/downloads/critical-workers-implementing-safety-practices.pdf

Emergency Management Services
Asymptomatic EMS providers who cared for a symptomatic patient who was tested but not yet resulted do not need to be furloughed. If the result for the patient comes back positive then EMS providers are risk assessed using the NJDOH healthcare provider risk assessment documents at https://www.nj.gov/health/cd/topics/covid2019_healthcare.shtml. If the EMS provider is symptomatic, they should not report to work, and follow their agency’s sick leave policies.

Group Homes
There are a variety of group homes that provide services for a variety of persons, including youth, persons with physical or mental health disabilities, needing substance use treatment, etc. Refer to CDC Guidance for Shared or Congregate Housing for guidance to prevent spread in these settings https://www.cdc.gov/coronavirus/2019-ncov/community/shared-congregate-house/guidance-shared-congregate-housing.html and Guidance for Group Homes for Individuals with Disabilities https://www.cdc.gov/coronavirus/2019-ncov/community/group-homes.html. These documents do not address infection prevention and control in healthcare settings. If a facility offers healthcare services, please consult CDC Interim Infection Prevention and Control...
Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings.

Long-Term Care Facilities

COVID-19 can quickly spread in congregate settings and nursing homes serve a particularly vulnerable population. LTCFs should report COVID-19 positive cases and respiratory outbreaks (COVID-19 confirmed or not) to the LHD. The LHD should report outbreaks to CDS and provide updated outbreak information as directed by CDS. Facilities should review, implement, and reinforce an infection control plan for preventing communicable disease among residents, visitors, and HCP. The plan should include:

- Use of standard and transmission-based precautions which includes appropriate use of personal protective equipment;
- Implement universal source control (i.e., use of barrier to cover the nose and mouth) for all persons entering the facility. Restrict surgical and isolation facemasks for use by HCP – per CDC Strategies for Optimizing the Supply of Facemasks: Contingency Capacity Strategies. All patients/residents, whether they have COVID-19 symptoms or not, should cover their nose and mouth (i.e., source control) when around others, as tolerated. Source control may be provided with tissue or cloth, non-medical masks - when those are available.
- Respiratory etiquette and hand hygiene programs;
- Patient placement, including cohorting of residents, staff, and equipment; this may involve dedicating certain wings or areas of the facility for separation of groups.
- Restricted movement of residents and staff, no communal dining/activities, and limitations on who can enter the facility;
- COVID-19 and other respiratory virus testing;
- Active surveillance/screening and risk assessment for residents and staff; being aware of atypical presentations in older adults.

PPE Shortages: LTC facilities are to report their PPE inventory on a daily basis, in accordance with EO 111, to https://report.covid19.nj.gov. Facilities in need of PPE can receive PPE based on the information included in this daily reporting and working with their county OEM.

Staffing Shortages: Facilities should try to handle staffing internally (e.g., extra shifts, extra pay, contact staffing agencies, et cetera); reach out to sister facilities if owner has more than one LTC facility; and contact county or local OEM for MRC or other possible resources. If all of these staffing solutions fail, the facility or LHD should contact NJDOH/Licensing (see Healthcare Facility Complaints) to determine operational capacity and compliance of the facility.

CDC and NJDOH have detailed infection control guidance and recommendations for LTCFs:
Healthcare facility complaints

Filing a complaint can be done online at https://www.nj.gov/health/healthfacilities/file_complaint.shtml or by calling the Complaint Hotline: 1-800-792-9770 seven days a week. Patients, health care facility employees and other members of the public may file complaints about hospitals, ambulatory surgery centers, home health agencies, nursing homes, assisted living facilities, comprehensive personal care homes, adult medical day care, pediatric medical day facilities, and many other licensed acute- and long-term care facilities.

New Jersey Substance Abuse Treatment Facilities

To register a complaint regarding any substance use treatment facility in New Jersey, call 1-877-712-1868 during business hours and speak with the county coordinator. After hours, call the same number and leave a message and your call will be returned the next business day.

Schools and Daycare Facilities

The decision to close a school is made at the local level and is made jointly between the school district and the local health department. The Department of Health does not have authority to mandate closure of private daycares. Daycare facilities should contact DCF for guidance. NJDOH guidance for schools and daycare facilities is available at https://nj.gov/health/cd/topics/covid2019_schools.shtml

Homeless or other Shelters

For COVID-19 cases or contacts who live in shelters or who are homeless, LHDs should consult with their county department of human services for assistance. For additional assistance, LHDs can contact the NJ Department of Human Services 609-292-3717 or call 211. CDC Resources to support persons experiencing homelessness: https://www.cdc.gov/coronavirus/2019-ncov/community/homeless-shelters/index.html

Personal Protective Equipment Use/Supply

Facilities needing PPE should submit their inventory at https://report.covid19.nj.gov/. Facilities are also encouraged to share supply needs with their county OEM. CDC has guidance on the appropriate use of PPE and strategies to optimize PPE and equipment: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/

Post-mortem guidance

and disposition should be referred to the regional medical examiner’s office: https://www.nj.gov/health/me/about-us/contact/.

D. Preventive Measures

There is no vaccine for COVID-19. Social distancing, respiratory etiquette, hand hygiene, self-isolation and quarantine are key steps in preventing infection. NJDOH has resources on prevention available at https://nj.gov/health/cd/topics/covid2019_community.shtml. CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain, such as grocery stores, pharmacies, and gas stations. Cloth face coverings may slow the spread of the virus and help people who may have the virus and do not know it from transmitting it to others. Resources for face coverings – how to wear, how to wash, are available at https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html.

International Travel


Cleaning and disinfection

Routine cleaning and disinfection procedures are appropriate. Refer to List N on the EPA website for EPA-registered disinfectants that have qualified under EPA’s emerging viral pathogens program for use against SARS-CoV-2, the virus that causes COVID-19: https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2

Additional Information

NJDOH: https://nj.gov/health/cd/topics/ncov.shtml