



Merlin disease code: 00342 Coronavirus disease 2019 (COVID-19)

No paper case report form  
Merlin extended data optional

## Background

Symptoms of COVID-19 are non-specific and the disease presentation can range from no symptoms (asymptomatic) to severe pneumonia, respiratory failure, and death. COVID-19 is a mild to moderate illness for approximately 80% of individuals evaluated with the disease; 15% have severe infection requiring supplemental oxygen and 5% of individuals have critical infections 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 5–6 days, range 1–14 days). In exposed populations such as nursing home residents, half of all infections detected during cohort screening may be presymptomatic or asymptomatic.

## Clinical criteria for case classification

One or more of the following in the absence of a more likely diagnosis:

- Onset or worsening of one of the following symptoms: cough, shortness of breath, difficulty breathing, new olfactory disorder or new taste disorder, confusion or change in mental status, persistent pain or pressure in the chest, inability to wake or stay awake
- **Or** at least two of the following symptoms: fever/chills/rigors, muscle aches/myalgia, headache, sore throat, nausea/vomiting, diarrhea, fatigue, congestion/runny nose
- **Or** pneumonia
- **Or** acute respiratory distress syndrome (ARDS)
- **Or** multisystem inflammatory syndrome in a child <21 years old (MIS-C)

## Laboratory criteria for case classification

### Confirmatory:

Either of the following:

- Detection of SARS-CoV-2 RNA using molecular amplification test (e.g., polymerase chain reaction [PCR])
- **Or** detection of SARS-CoV-2 by genomic sequencing (e.g., sequencing, high-confidence whole-genome sequencing)

### Presumptive:

Detection of SARS-CoV-2 antigen

### Supportive:

Detection of SARS-CoV-2 antibody

# Coronavirus Disease 2019 (COVID-19) (Continued)

## Epidemiological criteria for case classification

A person who had close contact with a confirmed or probable COVID-19 case in the 14 days before illness onset.

## Vital records criteria for case classification

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

## Case classification

### Confirmed:

A person with confirmatory laboratory criteria.

### Probable:

One of the following:

- A person with presumptive laboratory evidence
- **Or** a person with clinical criteria and epidemiological criteria in the absence of a negative SARS-CoV-2 PCR on a specimen with a lab event date from 2 days before symptom onset to 5 days after onset
- **Or** a person with vital records criteria

### Suspect

MIS-C in a person with supportive laboratory criteria

### Not a case:

One or more of the following in the absence of confirmed and probable criteria:

- A person with potential exposure to SARS-CoV-2
- **Or** a negative or inconclusive SARS-CoV-2 PCR result
- **Or** a negative SARS-CoV-2 genomic sequencing result
- **Or** a negative or inconclusive antigen result
- **Or** a SARS-CoV-2 IgM, IgG, or IgA antibody result (positive or negative)
- **Or** a person with a negative SARS-CoV-2 PCR on a specimen with a lab event date from 2 days before symptom onset to 5 days after onset
- **Or** no epidemiological criteria

## Criteria to distinguish a new case from previous reports

A new case should not be created in Merlin for reinfection or coinfections. Data associated with the existing case will be used to enumerate reinfection and coinfections based on the following criteria:

- SARS-CoV-2 sequencing results from the new positive specimen and a positive specimen from the most recent previous case demonstrate a different lineage
- **Or** person has 2 positive PCR, sequencing, or antigen lab event dates more than 90 days apart