

Considerations in the investigation of cases and clusters of COVID-19

Interim guidance
13 March 2020



This document offers operational guidance to Member States for the rapid investigation of suspected COVID-19 cases after an alert or signal. It is to be used by local, regional, or national health authorities as considerations for investigating cases of COVID-19. This should not be considered a comprehensive guide to outbreak investigation. Detailed outbreak investigation guidance has been developed for other respiratory pathogens, including [MERS-CoV](#) and [influenza](#). Further information on outbreak investigation for COVID-19 can be found on the [OpenWHO website](#).

This guidance may be implemented in different countries with varying resources and epidemiological patterns, and should be adapted accordingly. This document is intended to describe the specific components required to undertake an investigation.

This document is informed by current knowledge of the COVID-19 outbreak and similar considerations for other respiratory pathogens, including MERS-CoV and influenza viruses. WHO will continue to update these recommendations as new information becomes available.

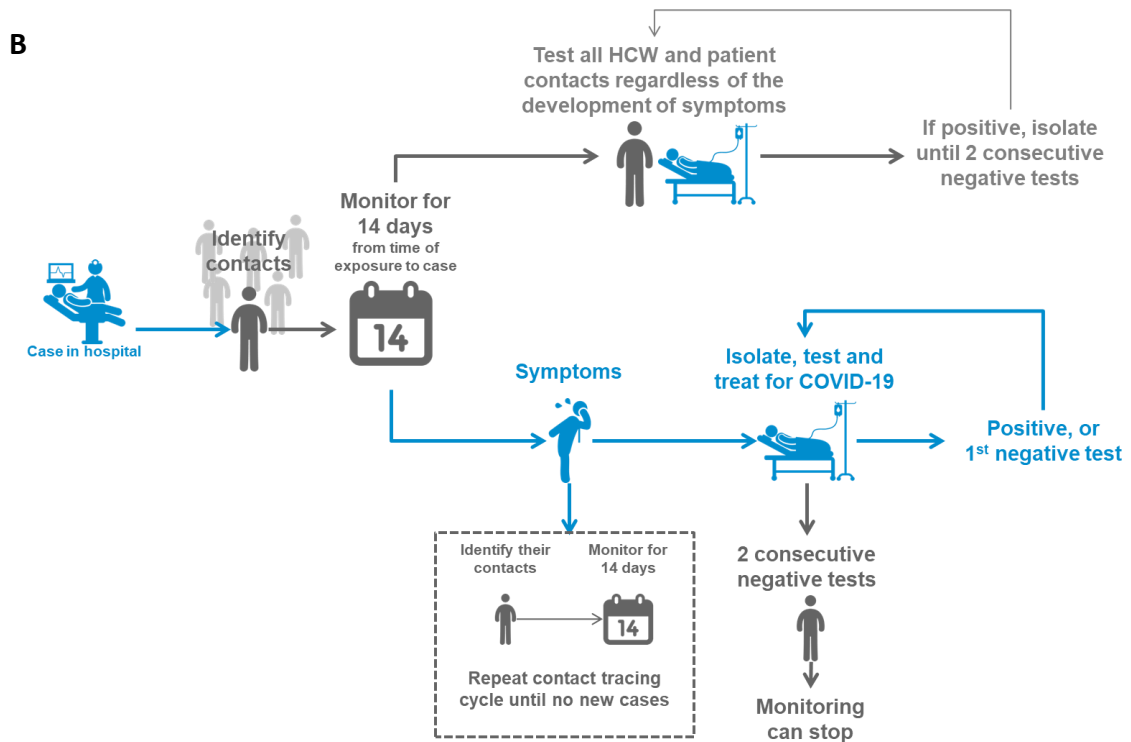
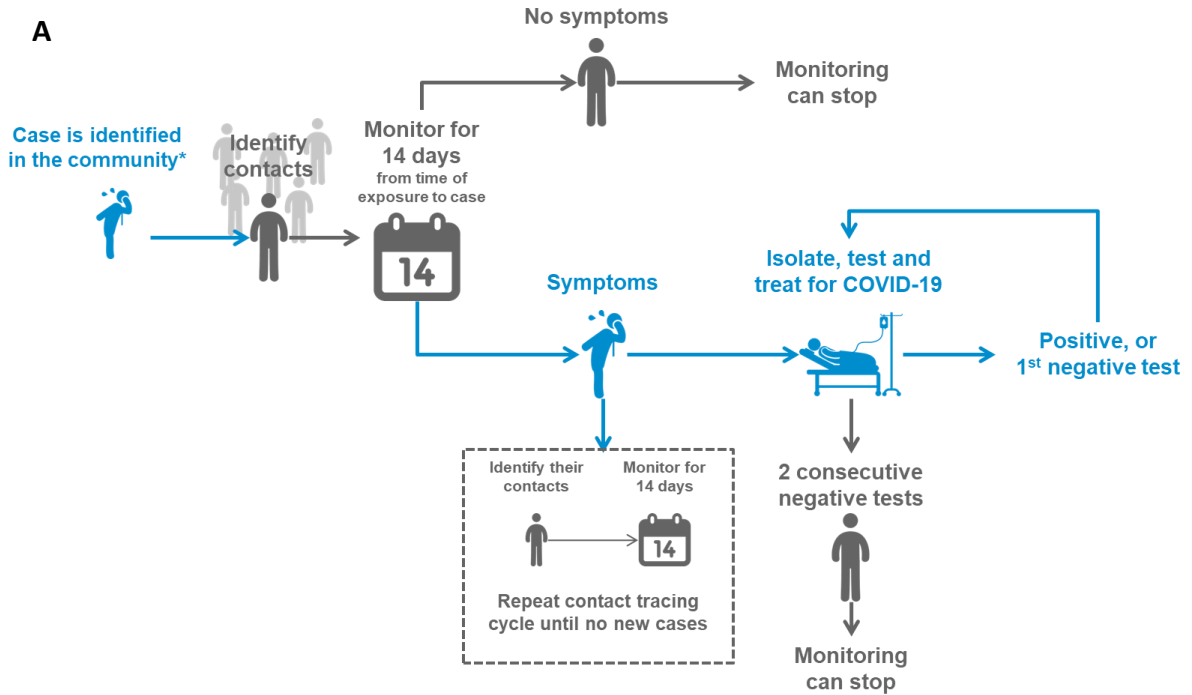
Considerations in the investigation of COVID-19 cases

The table below serves as operational guidance for time-sensitive (within first few days of notification) priority actions after the signal of a COVID-19 case/cluster.

Objectives of the investigation	<p>The objectives of any investigation of a suspected COVID-19 case include:</p> <ul style="list-style-type: none"> • Rapidly detect COVID-19 and any evidence of human-to-human transmission among contacts • Reduce human-to-human transmission, prevent outbreaks, and delay the spread of disease
Composition, protection of and tools for the investigative team	<p>Composition Personnel with the capacity, knowledge, and authority to:</p> <ul style="list-style-type: none"> • Interview persons with suspected COVID-19 and conduct contact tracing • Triage suspected COVID-19 cases and contacts for health care depending on clinical condition • Collect respiratory specimens from suspected COVID-19 cases • Recommend and implement measures to prevent further transmission <p>Protection The COVID-19 virus is spread through contact, droplet, and fomites. To minimize risk of infection of the investigation team:</p> <ul style="list-style-type: none"> • Optimize size of team to minimize contact with a suspected COVID-19 case • Ensure all those in the investigation team are trained in IPC measures specific to COVID-19¹ • Interview suspected cases and contacts over the phone, if feasible, or at a distance of more than 1 metre. <p>Tools</p> <ul style="list-style-type: none"> • Provide sufficient and appropriate PPE² • Gather biological specimen collection material, transport containers, viral transport media, labels, bags, coolers, and cold packs • Gather copies of case investigation protocols, questionnaires, contact tracing and monitoring tools, and the national case definition
Investigation case definition	<ul style="list-style-type: none"> • Adjust national/WHO case definitions³ for the purpose of investigation (define time, person, place) for additional case finding and contact tracing (Figure)
Contact Tracing	<p>Identify all social, familial, work, and health care worker contacts who have had contact⁸ with a confirmed case from 2 days before symptom onset of the case and up to 14 days after their symptom onset. Create a line list, including demographic information, date of first and last common exposure or date of contact with the confirmed or probable case, and date of onset if fever or respiratory symptoms develop. The common exposures and type of contact with the confirmed or probable case should be thoroughly</p>

	documented for any contacts who become infected with COVID-19. Instructions can be found here: OpenWHO website
Management of case(s) and contacts	<p>COVID-19 case(s)</p> <ul style="list-style-type: none"> All patients with suspected COVID-19 who have severe acute respiratory infection should be triaged and isolated at the first point of contact with the health care system. Emergency treatment should be started based on disease severity.⁴ For those presenting with mild illness, hospitalization may not be required unless there is concern about rapid deterioration. If there is only mild illness, providing care at home may be considered, with strict precautions regarding when to seek care.⁵ <p>Contacts</p> <ul style="list-style-type: none"> For contacts of a suspected COVID-19 case, at a minimum, health authorities need to encourage respiratory and hand hygiene and may encourage, depending on the epidemiological context and resources available, self-monitoring for symptoms, social distancing, or quarantine. For contacts of a laboratory-confirmed COVID-19 case, WHO recommends that such persons be quarantined for 14 days from the last time they were exposed to a COVID-19 patient.⁶
Collection and testing of specimens	<p>From all confirmed cases and their contacts, a respiratory sample should be collected and tested as soon as possible, particularly contacts with symptoms.⁷ Respiratory samples from quarantined persons, irrespective of whether they have symptoms, should be sent for laboratory testing at the end of the quarantine period.</p> <p>Ensure that all those involved in collection and transportation of specimens should be trained in safe handling practices and spill decontamination procedures.⁶</p> <p>For laboratory-confirmed cases, 2 negative specimens at least 1 day apart indicate recovery from infection. Based on initial data, this is estimated to be 14 days after the end of illness for mild cases of infection.</p>
Risk communication	<p>Assess the initial perception of risk among affected and at-risk populations, manage expectations and communicate uncertainties</p> <p>Encourage people to adopt protective behaviours: frequent hand hygiene and good respiratory etiquette, avoiding people with respiratory symptoms</p> <p>Encourage people to call hotline (if available) or their health care provider if they have concerns/questions or develop symptoms</p> <p>Discourage use of medical masks, unless one of the following exists:</p> <ul style="list-style-type: none"> Individuals with respiratory symptoms Health care workers Individuals in close contact (within 1 metre) of a patient with a respiratory infection
Reporting	<p>National authorities need to report probable and confirmed cases of COVID-19 to WHO within 48 hours of identification.⁸</p> <p>Report using the Individual Case Reporting Form and consider transitioning to the aggregate Daily/Weekly Reporting Form if the number of cases increases and resources are no longer available for individual case reporting.⁸</p>
Further investigations	<p>Standardised epidemiological protocols have been developed for COVID-19 and are available on the WHO website.⁹ These may be initiated in addition to the public health investigation, but should not replace the investigation:</p> <ul style="list-style-type: none"> First few cases and contacts transmission investigation protocol, which evaluates extent of infection among cases and their contacts Household transmission investigation protocol, which evaluates extent of infection within the household setting Assessment of risk factors for COVID-19 among health care workers working in a health care setting in which a confirmed COVID-19 patient is receiving care Surface sampling of COVID-19 virus: A practical ‘how to’ protocol for health care and public health professionals to assess surface contamination and the role of environmental contamination in transmission Global COVID-19 Clinical Characterization Case Record Form and data platform for anonymized COVID-19 clinical data to collect clinical data to better understand the natural history of disease and describe clinical phenotypes and treatment interventions

Contact tracing in the community (A) and in health care settings (B)



References

- ¹ World Health Organization. [Infection prevention and control](#)
- ² World Health Organization. [Rational use of PPE](#)
- ³ World Health Organization. [Global Surveillance for human infection with coronavirus disease \(COVID-19\)](#)
- ⁴ World Health Organization. [Clinical management of severe acute respiratory infection when novel coronavirus \(nCoV\) infection is suspected](#)
- ⁵ World Health Organization. [Home care for patients with suspected novel coronavirus \(nCoV\) infection presenting with mild symptoms and management of contacts](#)
- ⁶ World Health Organization. [Considerations for quarantine of individuals in the context of containment for coronavirus disease \(COVID-19\)](#)
- ⁷ World Health Organization. [Laboratory testing for 2019 novel coronavirus \(2019-nCoV\) in suspected human cases](#)
- ⁸ World Health Organization. [Revised case reporting form for COVID-19 for confirmed cases and their outcome](#)
- ⁹ World Health Organization. [Coronavirus disease \(COVID-19\) technical guidance: Early investigations](#)

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