Global Surveillance for COVID-19 disease caused by human infection with novel coronavirus (COVID-19)

Interim guidance
27 February 2020

Background

This document summarizes WHO’s revised guidance for global surveillance of COVID-19 disease caused by infection with novel coronavirus (COVID-19). WHO will continue to update this guidance as new information about COVID-19 becomes available.

Updated information about COVID-19 can be found here along with other guidance documents. https://www.who.int/health-topics/coronavirus

Purpose of this document

This document provides guidance to Member States on implementation of global surveillance of COVID-19.

Objectives of the surveillance

The objectives of this global surveillance are:

1. Monitor trends of the disease where human-to-human transmission occurs
2. Rapidly detect new cases in countries where the virus is not circulating
3. Provide epidemiological information to conduct risk assessments at the national, regional and global level
4. Provide epidemiological information to guide preparedness and response measures

Case definitions for surveillance

The case definitions are based on the current information available and will be revised as new information accumulates. Countries may need to adapt case definitions depending on their own epidemiological situation.

Suspect case

A. A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness of breath), AND with no other aetiology that fully explains the clinical presentation AND a history of travel to or residence in a country/area or territory reporting local transmission (See situation report) of COVID-19 disease during the 14 days prior to symptom onset.

OR

B. A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to onset of symptoms;

OR

C. A patient with severe acute respiratory infection (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness breath) AND requiring hospitalization AND with no other aetiology that fully explains the clinical presentation.
**Probable case**

A suspect case for whom testing for COVID-19 is inconclusive\(^1\).

**Confirmed case**

A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.


**Recommendations for follow-up of contacts**

**Definition of contact**

A contact is a person that is involved in any of the following:

- Providing direct care without proper personal protective equipment (PPE)\(^2\) for COVID-19 patients
- Staying in the same close environment of a COVID-19 patient (including workplace, classroom, household, gatherings).
- Traveling together in close proximity (1 m) with a COVID-19 patient in any kind of conveyance within a 14-day period after the onset of symptoms in the case under consideration.

**Recommendations for laboratory testing**

Any suspected case should be tested for COVID-19 infection using available molecular tests. However, depending on the intensity of the transmission, the number of cases and the laboratory capacity, only a subset of the suspect cases may be tested.

If resources allow, testing may be done more broadly (for instance through sentinel surveillance) to better assess the full extent of the circulation of the virus.

Based on clinical judgment, clinicians may opt to order a test for COVID-19 in a patient not strictly meeting the case definition, for example, if there are patients involved in a cluster of acute respiratory illness among healthcare workers or of severe acute respiratory infection (SARI) or pneumonia in families, workplaces or social network.

**Recommendations for reporting surveillance data to WHO**

**Case based Reporting:**

WHO requests that national authorities report probable and confirmed cases of novel coronavirus COVID-19 infection *within 48 hours* of identification, by providing the minimum data set outlined in the “Revised case reporting form for 2019 Novel Coronavirus of confirmed and probable cases”, through the National Focal Point and the Regional Contact Point for International Health Regulations at the appropriate WHO regional office. [A template for the revised line listing in Excel format](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-%28ncov%29-infection-is-suspected-20200125) with the data dictionary, which suggests the name of the variables and their specifications is available. If the outcome of the patient is not yet available at first reporting an update of the report should be provided as soon as outcome is available latest *within 30 days* of the first report.

Reporting of case-based report is requested as long as feasible for the country. When it is not feasible to report case-based data, countries are requested to provide daily and weekly aggregated data.

**Daily aggregated data**

WHO requests reporting of the number of new confirmed cases by first administrative level (e.g. region, province, state, municipalities) and deaths

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\(^1\) Inconclusive being the result of the test reported by the laboratory.

Weekly aggregated data:

- Weekly number of new confirmed: Patients tested positive for COVID-19 infection
- Weekly number of new probable case: Patient with inconclusive laboratory test result
- Weekly number of new deaths due to COVID-19 infection
- Weekly number of new COVID-19 cases hospitalised
- Weekly number of new COVID-19 cases treated with mechanical ventilation or ECMO or admitted in intensive care unit (ICU).
- Weekly number of new cases and new deaths, by age-group in year (using: 0<2, 2<5, 5<15, 15<50, 50<65 and 65 and above; or similar).
- Cumulative sex ratio of confirmed cases and deaths
- Total number of laboratory tests conducted
- Total number of tests that are positive for COVID-19
- If possible, number of contacts under follow-up and number of new identified contacts

Procedures to report to WHO are similar to that implemented for the case-based reporting.

Recommendations for specimen collection

Lower respiratory specimens likely have a higher diagnostic value than upper respiratory tract specimens for detecting COVID-19 infection. WHO recommends that, if possible, lower respiratory specimens such as sputum, endotracheal aspirate, or bronchoalveolar lavage be collected for COVID-19 testing. If patients do not have signs or symptoms of lower respiratory tract disease or specimen collection for lower respiratory tract disease is clinically indicated but the collection is not possible, upper respiratory tract specimens, such as a nasopharyngeal aspirate or combined nasopharyngeal and oropharyngeal swabs should be collected.

If initial testing is negative in a patient who is strongly suspected to have COVID-19 infection, the patient should be resampled, and specimens collected from multiple respiratory tract sites (nose, sputum, endotracheal aspirate). Additional specimens may be collected such as blood, urine, and stool, to monitor the presence of virus and shedding of virus from different body compartments.

Full details about laboratory guidance for COVID-19 can be found here: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-guidance

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