

Recommendations for COVID-19: Case Definition, Specimen Collection, and Diagnostic Tests

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1 Clinical Presentation Criteria

One or more of the following:

- (1) Fever (≥ 38 °C) or symptoms of acute respiratory tract infection.
- (2) **Abnormal sense of smell (anosmia), abnormal sense of taste (dysgeusia), or diarrhea of unknown etiology.**
- (3) Community-acquired pneumonia (CAP) **highly suspected to be COVID-19 by doctors.**

2 Laboratory Diagnosis Criteria

One or more of the following:

- (1) Pathogen (SARS-CoV-2) isolated and identified from a clinical specimen (**nasopharyngeal** swab, throat swab, expectorated sputum, or lower respiratory tract aspirates).
- (2) Positive molecular biological testing for viral (SARS-CoV-2) RNA from a clinical specimen (**nasopharyngeal** swab, throat swab, expectorated sputum, or lower respiratory tract aspirates).

3 Epidemiological Criteria

One or more of the following within 14 days prior to symptom onset:

- (1) **History of traveling or living abroad, or contact with symptomatic (fever or other respiratory tract infection symptoms) individuals returning from abroad.**
- (2) History of close contact with symptomatic suspected or confirmed case(s), including caring for or interacting with these individuals, or direct contact with body fluid or respiratory secretions without adequate personal protective equipment (PPE).
- (3) History of cluster related to confirmed cases.

4 Reporting Requirements for COVID-19

Any cases with one or more of the following conditions should be reported to the Taiwan Centers for Disease Control (Taiwan CDC):

- (1) Meet clinical presentation criteria (1) AND **one or more epidemiological criteria**.
- (2) Meet clinical presentation criteria (2) AND any of epidemiological criteria (1) or (2).
- (3) Meet clinical presentation criteria (3).
- (4) Meet laboratory diagnosis criteria.

5 Case definitions

1. Suspected case: meet clinical presentation criteria but not laboratory proven, plus history of close contact with symptomatic confirmed case(s) within 14 days prior to symptom onset.
2. Confirmed case: meet laboratory diagnosis criteria, regardless of clinical signs and symptoms.

6 Specimen Collection and Diagnostic Tests

Please refer to table 1.

Table 1: Specimen Collection, Handling, and Diagnostic Tests

Disease name	Specimen source	Detection method	Time limit for specimen collection	Minimal specimen amount and other regulations	Specimen handling	Specimen preservation (preservation time)	Cautions
Severe Pneumonia with 2019 novel coronavirus (COVID-19)	Nasopharyngeal swab or throat swab	Pathogen	Within 3 days after symptom onset	Rub the sterile swab on the back of the nasopharynx or throat, and put it in the specimen container without contamination.	2-8°C (category B infectious substance with P650 packaging)	Viral strain (30 days) Nasopharyngeal or throat swab (30 days)	<ol style="list-style-type: none"> Repeat testing if indicated by doctors based on clinical observations. Refer to Remarks 2.8.5 for further instructions. For guidance on throat specimen collection, please see Section 3.7. Containers with o-ring or other leakproof designs are recommended for specimen handling. If leakage is noted, the specimen should not be tested.
	Expectorated or respiratory tract aspirates			Collect expectorated sputum with sterile containers.		Viral strain (30 days) Expectorated sputum (30 days)	<ol style="list-style-type: none"> Applicable for patients with mild illness (productive cough), pneumonia, or severe illness. Repeat testing if indicated by doctors based on clinical observations. Saliva should NOT be collected. For guidance on expectorated sputum specimen collection, please refer to Section 3.9.
	Serum	Antibody	Acute stage (within 1-5 days after symptom onset) or recovery stage	Collect serum samples (≥ 3 ml) with sterile test tubes.		Serum (30 days)	Refer to Remarks 2.8.3 and 2.8.4 for further details on serum specimens. For guidance on serum specimen collection, please refer to Section 3.3.