

2019 Novel Coronavirus (2019-nCoV) Physician Check List: Managing patients who may have (2019-nCoV) infection

The purpose of this checklist is to provide you with step-by-step guidance when evaluating patients who may have 2019 Novel Coronavirus (2019-nCoV) infection, with the goal of preventing the spread infection and expediting investigation with the Los Angeles County Department of Public Health (LAC DPH) and testing through the Public Health Laboratory (PHL).

Medical providers, for assistance with diagnosis and infection control, please call:
LAC DPH Acute Communicable Disease Control (ACDC)
(213) 240-7941 (8:00am – 5:00pm Monday to Friday)
(213) 974-1234 (After Hours Emergency Operator)

Step 1. Identify patients who may have respiratory illness caused by 2019-nCoV.


- 1a. Place visible signage requesting visitors with a fever and recent international travel to immediately notify a healthcare staff. (2019 nCoV travel alert poster: [English](#) / [Chinese-Simplified](#) / [Chinese-Traditional](#) [Combined English/Chinese-Simplified](#) [Spanish](#))
- 1b. Place surgical mask on all patients who present with respiratory symptoms

Step 2. Does the patient meet criteria for evaluation as a Person Under Investigation (PUI) for 2019-nCoV?¹

Clinical Features	&	Epidemiologic Risk
Fever or signs/symptoms of lower respiratory illness (e.g., cough or shortness of breath)	AND	Any person, including health care workers, who has had close contact with a laboratory-confirmed 2019-nCoV patient within 14 days of symptom onset
Fever and signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath)	AND	A history of travel from Hubei Province , China within 14 days of symptom onset
Fever and signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath) requiring hospitalization	AND	A history of travel from mainland China within 14 days of symptom onset

The criteria are intended to serve as guidance for evaluation. Patients should be evaluated and discussed with public health departments on a case-by-case basis if their clinical presentation or exposure history is equivocal (e.g., uncertain travel or exposure).

¹ Refer to the [CDC Guidance for Health Professionals](#) for definitions of fever, hospitalization, close contact, and laboratory-confirmed: <https://www.cdc.gov/coronavirus/2019-nCoV/hcp/clinical-criteria.html>

IF NO then **STOP**  here and continue evaluation for alternative diagnosis as clinically indicated.

IF YES and patient meets PUI criteria, then immediately isolate patient:

- Place patient in private room with door closed (ideally negative pressure airborne isolation-room).

Step 3. Implement following infection control procedures for healthcare workers:

- 3a. Standard precautions
- 3b. Contact precautions (gloves, gown)
- 3c. Eye protection
- 3d. Airborne precautions (e.g., N95 mask or PAPR)

Step 4. Immediately contact and report patient to the LAC DPH ACDC:

(213) 240-7941 from 8:00am- 5:00pm Monday to Friday and (213) 974-1234 (After Hours Emergency Operator)

- 4a. Download and review [PUI form](#) (available for download from DPH nCoV website); DPH will ask for information on this form to determine person meets nCoV testing criteria.
- 4b. Call LAC DPH and an on-call physician will advise on the next steps.
- 4c. **DO NOT send specimens to the Public Health Lab (PHL) until case is discussed with and testing is approved by DPH.**

Step 5. Collect specimens for laboratory diagnosis via the PHL.

Collect one specimen from each category (lower respiratory and upper respiratory) as soon as possible regardless of symptom onset.

5a. *Lower Respiratory*

- **Bronchoalveolar lavage or tracheal aspirate:** 2-3 mL in a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.
- **Sputum (if productive cough):** Have the patient rinse the mouth with water and then expectorate deep cough sputum directly into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.

5b. *Upper Respiratory*

- **Nasopharyngeal swab AND oropharyngeal swab (NP/OP swab)** Use a synthetic fiber swab with plastic shaft. Do not use calcium alginate swabs or swabs with wooden shafts. Place swab in a sterile tube with 2-3 ml of viral transport media Do NOT combine NP/OP swab specimens; keep swabs in separate viral transport media collection tubes.
- **Nasopharyngeal wash/aspirate or nasal aspirate:** 2-3 mL in a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.

NOTE:

- It is imperative that NP and OP swabs are placed in viral transport media, such as ones used to collect specimen NP swabs for influenza testing (see figure to the right).
- Improper collection, such as placing swabs in bacterial culture media, will void the specimen and delay testing.



If indicated Public Health may request the additional following specimens:

5c. *Serum*

- Children and adults: Collect 1 tube (5-10 mL) of whole blood in a serum separator tube.
- Infant: A minimum of 1 mL of whole blood is needed for testing pediatric patients. If possible, collect 1 mL in a serum separator tube.

5d. *Stool*

- Collect and place in a sterile, screw-cap, leak-proof container without preservative.

5e. *Urine*

- Collect a minimum of 10mL in a sterile, screw-cap, leak proof container without preservative.

TRANSPORT INFORMATION

- Refrigerate specimens at 2-8°C and transport on cold pack.
- Complete a PHL H-3021 Test Requisition form for *each specimen*. Prefilled LAC DPH test request forms created from 2019-nCoV testing are available on the from [DPH nCoV website](#). Note there are two different forms:
 - Form to be used for NP swabs that request testing for nCoV and Biofire panel
 - Form to be used for all other specimens that request testing for nCoV
- Upon approval by LAC DPH, the PHL will assist with courier pick up. Specimens that arrive at PHL without prior DPH approval may experience significant delays in testing. **If specimens cannot be collected at the clinic, do not refer the patient to another facility to obtain specimens** (i.e., commercial lab, other medical clinic). **Notify Public Health.**

Step 6. Continue medical evaluation and empiric treatment for other causes of respiratory infection or pneumonia as clinically indicated.

All patients with suspected nCoV-2019 infection may also be tested for common causes of respiratory infection and pneumonia as clinically indicated. **Testing for other respiratory pathogens should not delay specimen collection for nCoV-2019 testing. PHL can assist with rapid molecular respiratory pathogen testing if needed.**

Step 7. Do not discharge patient without prior approval from LAC DPH.

Continue patient isolation and infection control procedures as above.