

Novel Coronavirus (2019-nCoV): Frequently Asked Questions for Clinicians

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The Wuhan coronavirus (2019-nCoV) outbreak has unfolded so rapidly that many clinicians are scrambling to stay on top of it. Here are the answers to some frequently asked questions about how to prepare your clinic to respond to this outbreak.

Keep in mind that the outbreak is moving rapidly. Though scientific and epidemiologic knowledge has increased at unprecedented speed, there is much we don't know, and some of what we think we know will change. Follow the links for the most up-to-date information.

What should our clinic do first?

Plan ahead with the following:

- Develop a plan for office staff to take travel histories from anyone with a respiratory illness, and provide training for those who need it. Travel history at present should include asking about travel to China in the past 14 days, specifically Wuhan city or Hubei province.
- Review up-to-date [infection control practices](#) with all office staff and provide training for those who need it.
- Take an inventory of supplies of personal protective equipment (PPE), such as gowns, gloves, masks, eye protection, and N95 respirators or powered air-purifying respirators (PAPRs), and order items that are missing or low in stock.
- Fit-test users of N95 masks for maximal effectiveness.
- Plan where a potential patient would be isolated while obtaining expert advice.
- Know whom to contact at the state or local health department if you have a patient with the appropriate travel history.

The Centers for Disease Control and Prevention (CDC) has prepared a [toolkit](#) to help frontline healthcare professionals prepare for this virus. Providers need to stay up-to-date on the [latest recommendations](#), as the situation is changing rapidly.

When should I suspect 2019-nCoV illness, and what should I do?

Take the following steps to assess the concern and respond:

- If a patient with respiratory illness has traveled to China in the past 14 days, immediately put a mask on the patient and move the individual to a private room. Use a negative-pressure room if available.
- Put on appropriate PPE (including gloves, gown, eye protection, and mask) for contact, droplet, and airborne precautions. CDC recommends an N95 respirator mask if available, although we don't know yet if there is true airborne spread.
- Obtain an accurate travel history, including dates and cities. (Tip: Get the correct spelling, as the English spelling of cities in China can cause confusion.)
- If the patient meets the current CDC definition of "[person under investigation](#)" (PUI), or if you need guidance on how to proceed, notify infection control (if you are in a facility that has it) and call your state or local health department immediately.
- Contact public health authorities who can help decide whether the patient should be admitted to airborne isolation or monitored at home with [appropriate precautions](#).

What is the definition of a PUI?

The current definition of a [PUI](#) is a person who has fever and symptoms of a respiratory infection (cough, shortness of breath) *AND* who has *EITHER* been in Wuhan city or Hubei province in the past 14 days *OR* had close contact with a person either under investigation for 2019-nCoV infection or with confirmed infection. The definition of a PUI will change over time, so check [this link](#).

How can I test for 2019-nCoV?

As of January 30, 2020, testing is by PCR and only available in the United States through CDC in Atlanta. Testing should soon be available in state health department laboratories. If public health authorities decide that your patient should be tested, they will instruct you on which [samples](#) to obtain.

The full sequence of 2019-nCoV has been shared, so some reference laboratories may develop and validate tests, ideally with assistance from CDC. If testing becomes available, make certain that it is a reputable lab that has carefully validated the test.

Should I test for other viruses ?

Because the symptoms of 2019-nCoV infection overlap with those of [influenza](#) and other respiratory viruses, PCR testing for other viruses should be considered *if* it will change management (ie, change the decision to provide influenza antivirals). Use appropriate PPE while collecting specimens, including eye protection. If 2019-nCoV is a consideration, you may want to send the specimen to a hospital lab for testing, where the sample will be processed under a biosafety hood, rather than doing point-of-care testing in the office.

How dangerous is 2019-nCoV?

The current estimated mortality rate is 2%-3%. That is probably an overestimate, as those with severe disease and those who die are more likely to be tested and reported early in an epidemic.

Our current knowledge is based on preliminary reports from hospitalized patients and will probably change. From the speed of spread and a single family cluster, it seems likely that there are milder cases and perhaps asymptomatic infection.

What else do I need to know about coronaviruses ?

Coronaviruses are a large and diverse group of viruses, many of which are animal viruses. Before the discovery of the 2019-nCoV, six coronaviruses were known to infect humans. Four of these (HKU1, NL63, OC43, and 229E) predominantly cause mild to moderate upper respiratory illness, and they are thought to be responsible for [10%-30% of colds](#). They occasionally cause [viral pneumonia](#) and can be detected by some commercial multiplex panels.

Two other coronaviruses have caused outbreaks of severe respiratory illness in people: SARS, which emerged in Southern China in 2002, and MERS in the Middle East, in 2012. Unlike SARS, sporadic cases of MERS continue to occur.

The current outbreak is caused by [2019-nCoV](#), a previously unknown beta coronavirus. It is most closely related (~96%) to a bat virus and shares about 80% sequence homology with SARS CoV.

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