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Fast Five Quiz: COVID-19

Michael Stuart Bronze, MD

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This article was last updated on March 20, 2020. (Disclaimer: The information in this quiz may not be regularly updated. Please review information on the CDC website and in Medscape's novel coronavirus resource center.)

Coronavirus disease 2019 (COVID-19) is defined as illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified during an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. On March 11, 2020, the World Health Organization declared COVID-19 a global pandemic, WHO's first such designation since declaring H1N1 influenza a pandemic in 2009.

With so much concern and attention surrounding COVID-19, knowledge of key clinical information is important. Are you familiar with the disease's presentation and the recommendations for diagnosis and treatment? Test your knowledge with this short quiz.

Which of the following has been recognized as a significant risk factor for the development of acute respiratory distress syndrome (ARDS) and death in patients with COVID-19?

Your Peers Chose:

- Decreased lactate dehydrogenase levels 9%
- Elevated D-dimer levels 39%
- Neutropenia 35%
- Lymphocytosis 17%

Recognized risk factors associated with ARDS and death in patients with COVID-19 include the following:

- Older age
- High fever (102.2°F [39°C])
- Comorbidities (eg, hypertension, diabetes)
- Neutrophilia
- Lymphocytopenia
- Elevated end-organ–related indices (eg, aspartate aminotransferase [AST], lactate dehydrogenase [LDH], urea)
- Elevated inflammation-related indices (high-sensitivity C-reactive protein and serum ferritin)
- Elevated coagulation function–related indicators (prothrombin time and D-dimer)

Read more about severe illness in patients with COVID-19.

Which of the following most accurately reflects the estimated incubation period of COVID-19?

Your Peers Chose:

- Within 24 hours 0%

- 3-4 weeks 4%
- 2 days to 2 weeks 96%
- Longer than a month 0%

According to a pooled analysis of confirmed COVID-19 cases reported between January 4, and February 24, 2020, the median incubation period was estimated to be 5.1 days. The analysis also found that 97.5% of patients who develop symptoms do so within 11.5 days of infection. Transmission is believed to occur via respiratory droplets from coughing and sneezing, as with other respiratory pathogens, including influenza and rhinovirus. Some data have suggested that asymptomatic patients are still able to transmit infection.

Read more about the transmission of COVID-19.

Which of the following is the most commonly reported clinical finding in patients with COVID-19?

Your Peers Chose:

- Sneezing 3%
- Hypotension 0%
- Diarrhea 0%
- Fever 97%

Presentations of COVID-19 have ranged from asymptomatic/mild symptoms to severe illness and mortality. Common symptoms include fever, cough, and shortness of breath. Huang and colleagues reported that the most common clinical finding was fever (98%), followed by cough (76%) and myalgia/fatigue (44%). Headache, sputum production, and diarrhea were less common. The clinical course was characterized by the development of dyspnea in 55% of patients and lymphopenia in 66%.

Read more about the symptoms of COVID-19.

Of the following, which diagnostic test has been more commonly used in the diagnosis of COVID-19?

Your Peers Chose:

- Immunofluorescent assay (IFA) 6%
- Real-time reverse transcription polymerase chain reaction (rRT-PCR) assay 67%
- Virus isolation in cell culture 8%
- Viral antigen detection test 19%

A real-time reverse transcription polymerase chain reaction (rRT-PCR) assay has been used to diagnose the virus in respiratory and serum samples from clinical specimens. In patients with suspected COVID-19, virus isolation in cell culture or initial characterization of viral agents recovered in cultures of specimens is not recommended, for biosafety reasons. Testing for other pathogens should be performed as part of the initial evaluation but should not delay testing for COVID-19.

According to current guidance from the CDC, local/state health departments should be immediately notified of patients with fever and lower respiratory illness whom they suspect may have COVID-19. The CDC further states that clinical specimens

should be collected for routine testing of respiratory pathogens but that clinical laboratories should not attempt viral isolation from specimens collected from persons suspected to have COVID-19, unless performed in a BSL3 laboratory.

Read more about the diagnosis of COVID-19.

Which of the following is most accurate regarding the treatment and prevention of COVID-19?

Your Peers Chose:

All individuals should use contact, airborne, and droplet precautions before entering a room with a patient who has confirmed or suspected COVID-19

94%

Interleukin inhibitors are contraindicated in patients with serious COVID-19 infection 2%

Alcohol-based sanitizers are wholly ineffective in the prevention of COVID-19 0%

A combination of zanamivir and peramivir is recommended in older patients with severe COVID-19 infection 4%

No specific antiviral treatment is recommended for COVID-19. Infected patients should receive supportive care to help alleviate symptoms. Vital organ function should be supported in severe cases. No vaccine is currently available for COVID-19.

Numerous antiviral agents, immunotherapies, and vaccines are being investigated and developed as potential therapies. These include remdesivir, lopinavir/ritonavir, rintatolimod, azvudine, danoprevir, and favipiravir. Interleukin-6 (IL-6) inhibitors may ameliorate severe damage to lung tissue caused by cytokine release in patients with serious COVID-19 infections. Further investigation is underway.

General measures for prevention of viral respiratory infections include:

- Handwashing with soap and water for at least 20 seconds. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains at least 60% alcohol may be used. However, if hands are visibly dirty, always wash hands with soap and water.
- Individuals should avoid touching their eyes, nose, and mouth with unwashed hands.
- Individuals should avoid close contact with sick people.
- Sick people should stay at home (eg, from work, school).
- Coughs and sneezes should be covered with a tissue, followed by disposal of the tissue in the trash.
- Frequently touched objects and surfaces should be cleaned and disinfected regularly.

Patients who are under investigation for COVID-19 should be evaluated in a private room with the door closed (an airborne infection isolation room is ideal) and asked to wear a surgical mask. All other standard contact and airborne precautions should be observed.

The WHO recommends the following:

- In addition to using standard precautions, all individuals, including family members, visitors, and healthcare workers, should use contact and droplet precautions before entering the room with patients who have suspected or confirmed COVID-19 infection. Limit the number of healthcare workers, family members, and visitors who are in contact, and maintain a record of all persons entering the patient's room, including all staff and visitors.
- Patients should be placed in adequately ventilated single rooms. When single rooms are not available, patients suspected of being infected should be grouped together.
- Where possible, a team of healthcare workers should be designated to care exclusively for suspected or confirmed cases of COVID-19 to reduce the risk for transmission. These workers should use a medical mask, eye protection (goggles), and/or facial protection (face shield) to avoid contamination of mucous membranes.

- After patient care, appropriate doffing and disposal of all personal protective equipment and hand hygiene should be carried out. Also, a new set of personal protective equipment is needed when care is given to a different patient. Equipment should be either single-use and disposable or dedicated equipment (eg, stethoscopes, blood pressure cuffs, thermometers) if equipment needs to be shared.

- Avoid moving and transporting patients out of their room or area unless medically necessary. Use designated portable x-ray equipment and/or other designated diagnostic equipment. If transport is required, use predetermined transport routes to minimize exposure for staff, other patients, and visitors, and have the patient use a medical mask.

Read more about the treatment and prevention of COVID-19.

This Fast Five Quiz was excerpted and adapted from the Medscape Drugs & Diseases article Coronavirus Disease 2019 (COVID-19).

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- Medscape Coronavirus Resource Center
- Coronavirus Disease 2019 (COVID-19): A New Pandemic?
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