CDC Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay

July 2, 2020

Coronavirus
Disease 2019
(COVID-19)

This Fact Sheet informs you of the significant known and potential risks and benefits of the emergency use of the Centers for Disease Control and Prevention's (CDC's) Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay.

Testing is to be conducted on specimens from individuals suspected of respiratory viral infection consistent with COVID-19 by a healthcare provider. Symptoms of respiratory viral infection due to SARS-CoV-2 and influenza can be similar.

What are the signs and symptoms of COVID-19?

Many patients with confirmed COVID-19 have developed fever and/or symptoms of acute respiratory illness (e.g., cough, dyspnea). The current information available to characterize the spectrum of clinical illness associated with COVID-19 suggests that symptoms include cough, shortness of breath or dyspnea, fever, chills, myalgias, headache, sore throat or new loss of taste or smell. Based on what is known about the virus that causes COVID-19, signs and symptoms may appear any time from 2 to 14 days after exposure to the virus, and the median incubation period is approximately 5 days. For further information on the symptoms of COVID-19 please see the link at the end of the document.

Public health officials have identified cases of COVID-19 throughout the world, including in the United States. Please check the CDC COVID-19 webpage (see link provided in "Where can I go for updates and more information?" section at the end of this document) for the most up to date information.

All individuals whose specimens are tested with this assay must receive the Fact Sheet for Patients: CDC Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay

What are the signs and symptoms of influenza?

The signs and symptoms of influenza usually develop suddenly and are similar to those of COVID-19. Common signs and symptoms of influenza are fever,

This test is to be performed using respiratory specimens collected from individuals suspected of respiratory viral infection consistent with COVID-19 by a healthcare provider.

cough, sore throat, runny/stuffy nose, body aches, headaches, and fatigue.

What do I need to know about COVID-19 testing? Current information on COVID-19 for healthcare providers is available at CDC's webpage, *Information for Healthcare Professionals* (see links provided in "Where can I go for updates and more information?" section). The Flu SC2 Multiplex Assay:

- can be used to test upper and lower respiratory specimens (such as nasopharyngeal, oropharyngeal, or nasal swab specimens; bronchoalveolar lavage specimens, sputum; lower respiratory tract aspirates; nasopharyngeal wash/aspirates; or nasal aspirates).
- should be ordered for the detection and differentiation of nucleic acid from SARS-CoV-2, influenza A, and/or influenza B viruses in individuals suspected of respiratory viral infection consistent with COVID-19 by a healthcare provider.
- is authorized for use in laboratories in the United States certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a that meet requirements to perform high complexity tests.

Specimens should be collected using appropriate infection control precautions. Current guidance is available at the CDC's website (see links provided in "Where can I go for updates and more information?" section at the end of this document).

When collecting and handling specimens from individuals suspected of being infected with COVID-19, appropriate personal protective equipment should be used as outlined in the CDC *Interim Laboratory Biosafety Guidelines for Handling and Processing*

CDC Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay

July 2, 2020

Coronavirus
Disease 2019
(COVID-19)

Specimens Associated with Coronavirus Disease 2019 (COVID-19). For additional information, refer to the CDC Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Persons for Coronavirus Disease 2019 (COVID-19) (see links provided in "Where can I go for updates and more information" section at the end of this document).

Can I use the CDC Flu SC2 Multiplex Assay to test asymptomatic individuals?

Asymptomatic or pre-symptomatic individuals can be tested if they are suspected of respiratory viral infection consistent with COVID-19 by a healthcare provider. This can include consideration of epidemiologic reason to do so, including contact with persons with probable or confirmed cases of COVID-19 and/or influenza or travel to areas where these viruses are actively circulating.

Negative results obtained from individuals who are not exhibiting clinical signs and symptoms associated with respiratory viral infection at the time of specimen collection should be interpreted with caution. Negative results in asymptomatic or pre-symptomatic individuals cannot be used as definitive evidence that the individual has not been exposed to or infected with SARS-CoV-2, influenza A, and/or influenza B viruses, or to determine whether an individual may be contagious.

This test is not authorized for use as a broad screening tool.

What does it mean if the specimen tests positive for SARS-CoV-2, the virus that causes COVID-19?

A positive test result for SARS-CoV-2 indicates that RNA from this virus was detected, and therefore the patient is infected with the virus and is presumed to be contagious. Laboratory test results should always be considered in the context of clinical findings and observations and epidemiological data in making a final diagnosis. Patient management decisions should be made by a healthcare provider and follow current CDC guidelines.

The Flu SC2 Multiplex Assay has been designed to minimize the likelihood of false-positive test results. However, in the event of a false-positive result, risks to individuals could include the following:

a recommendation for isolation of the patient, monitoring of household or other close contacts for symptoms, patient isolation that might limit contact with family or friends and might increase contact with other individuals with COVID-19, limits in the ability to work, delayed diagnosis and treatment for the actual infection causing the symptoms, and unnecessary prescription of a treatment or therapy.

All laboratories using this test must follow the standard confirmatory testing and reporting guidelines according to their appropriate public health authorities.

What does it mean if the specimen tests negative for SARS-CoV-2, the virus that causes COVID-19?

A negative test result for SARS-CoV-2 means that RNA from this virus was not present in the specimen above the limit of detection. However, a negative result does not rule out COVID-19 and should not be used as the sole basis for treatment or patient management decisions.

When diagnostic testing results are negative, the possibility of a false-negative result should be considered in the context of a patient's recent exposures and the presence of clinical signs and symptoms consistent with COVID-19. The possibility of a false-negative result should especially be considered if the patient's recent exposures or clinical presentation indicate that COVID-19 is likely, and diagnostic test results for other causes of illness (e.g., other respiratory illnesses) are negative. If COVID-19 is still suspected based on exposure history and clinical findings, retesting should be considered by healthcare providers in consultation with public health authorities.

Risks to an individual from a false-negative Flu SC2 Multiplex Assay result include delayed or lack of supportive treatment; lack of monitoring of infected patients and their household or other close contacts for symptoms, resulting in increased risk of spread of COVID-19 within the community; or other unintended adverse events.

CDC Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay

July 2, 2020

Coronavirus
Disease 2019
(COVID-19)

What does it mean if the specimen tests positive for influenza A and/or B viruses?

A positive test result for influenza A virus or influenza B virus indicates that RNA from one or both of these viruses was detected, the patient is infected with the virus(es) and is presumed to be contagious. Laboratory test results should always be considered in the context of clinical findings and observations and epidemiological data in making a final diagnosis. Patient management decisions should be made by a healthcare provider and follow current CDC guidelines.

The Flu SC2 Multiplex Assay has been designed to minimize the likelihood of false-positive test results. However, in the event of a false-positive result, risks to individuals could include the following: a recommendation for isolation of the patient, monitoring of household or other close contacts for symptoms, patient isolation that might limit contact with family of friends, limits in the ability to work, delayed diagnosis and treatment for the true infection causing the symptoms, unnecessary prescription of an antiviral medication or other therapy, or other unintended adverse effects.

What does it mean if the specimen tests negative for influenza viruses?

A negative test result for influenza viruses means that influenza A and/or B RNA was not present in the specimen above the limit of detection. However, a negative result does not rule out influenza virus infection and should not be used as the sole basis for treatment or patient management decisions.

When diagnostic testing results are negative, the possibility of a false-negative result should be considered in the context of a patient's recent exposures and the presence of clinical signs and symptoms consistent with influenza. The possibility of a false-negative result should especially be considered if the patient's recent exposures or clinical presentation indicate that influenza is likely, and diagnostic test results for other causes of illness (e.g., other respiratory illness) are negative. If influenza is still suspected based on exposure history and clinical findings, re-testing should be considered by healthcare providers in consultation with public health authorities.

Risks to a individuals from a false-negative Flu SC2 Multiplex Assay result for influenza A or B include: delayed or lack of supportive treatment; lack of monitoring of infected patients and their household or other close contacts for symptoms, resulting in increased risk of spread of influenza within the community; or other unintended adverse events. Risks to an asymptomatic patient from a false-negative Flu SC2 Multiplex Assay result for influenza A or B include: lack of monitoring of infected patients and their household or other close contacts for symptoms, resulting in increased risk of spread of influenza within the community; or other unintended adverse events.

Laboratory test results should always be considered in the context of clinical findings and observations and/or epidemiological data in making a final diagnosis. Patient management decisions should be made by a healthcare provider and follow current CDC guidelines.

What does it mean if the specimen tests positive for SARS-CoV-2 and one or both influenza (A and/or B) viruses? Is co-infection possible?

Yes, it is possible for an individual to be infected with influenza A virus, influenza B virus, and/or SARS-CoV-2 simultaneously. A positive test result for the viruses that cause COVID-19 and influenza A and/or B indicates that RNA from these viruses was detected, the patient may be co-infected, and is presumed to be contagious. Laboratory test results should always be considered in the context of clinical findings and observations and epidemiological data in making a final diagnosis. Patient management decisions should be made with a healthcare provider and follow current CDC guidelines.

What is an EUA?

The United States FDA has made this test available under an emergency access mechanism called an Emergency Use Authorization (EUA). The EUA is supported by the Secretary of Health and Human Service's (HHS's) declaration that circumstances exist to justify the emergency use of in vitro diagnostics (IVDs) for the detection and/or diagnosis of COVID-19.

CDC Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay

July 2, 2020

Coronavirus
Disease 2019
(COVID-19)

An IVD made available under an EUA has not undergone the same type of review as an FDA-approved or cleared IVD. FDA may issue an EUA when certain criteria are met, which includes that there are no adequate, approved, available alternatives, and based on the totality of scientific evidence available, it is reasonable to believe that this IVD may be effective in the detection of the virus that causes COVID-19.

The EUA for this test is in effect for the duration of the COVID-19 declaration justifying emergency use of IVDs, unless terminated or revoked (after which the test may no longer be used).

What are the approved available alternatives?

FDA has approved influenza tests, however there are no approved available alternative tests for the combined detection and differentiation of nucleic acid from SARS-CoV-2, influenza A, and/or influenza B viruses. FDA has issued EUAs for other tests that can be found at: https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization.

Where can I go for updates and more information? CDC webpages:

COVID-19:

General: https://www.cdc.gov/COVID19

Symptoms: https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html.

Healthcare Professionals: https://www.cdc.gov/coronavirus/2019-nCoV/quidance-hcp.html

Information for Laboratories: https://www.cdc.gov/coronavirus/2019-nCoV/quidance-laboratories.html

Laboratory Biosafety: https://www.cdc.gov/coronavirus/2019-nCoV/lab-biosafety-quidelines.html

Isolation Precautions in Healthcare Settings:

https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html

Specimen Collection: https://www.cdc.gov/coronavirus/2019-nCoV/guidelines-clinical-specimens.html

Infection Control: https://www.cdc.gov/coronavirus/2019-ncov/infection-control/index.html

Influenza:

https://www.cdc.gov/flu/index.htm

FDA webpages:

General: www.fda.gov/novelcoronavirus

EUAs (includes links to patient fact sheet and manufacturer's instructions): https://www.fda.gov/medical-devices/coronavirus-disease-2019-covid-19-emergency-use-authorizations-medical-devices/vitro-diagnostics-euas

Manufacturer: CDC

CDC Emergency Operations Center (EOC) 1600 Clifton Road Atlanta, Georgia, USA, 30329

Phone: **CDC EOC (770-488-7100)**