Quanterix Corporation Simoa<sup>™</sup> SARS-CoV-2 N Protein Antigen Test **December 21, 2021** 

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 Simoa™ SARS-CoV-2 N Protein Antigen Test.

The Simoa SARS-CoV-2 N Protein Antigen Test is authorized for use on human nasopharyngeal swab, anterior nasal swab, and saliva specimens that are collected and frozen from individuals consistent with the Emergency Use Authorization (EUA).

All patients whose specimens are tested with this assay will receive the Fact Sheet for Patients: Quanterix Corporation - Simoa SARS-CoV-2 N Protein Antigen Test.

#### What are the 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 may include cough, shortness of breath or dyspnea, fever, chills, fatigue, myalgias, headache, sore throat or new loss of taste or smell, congestion or runny nose, nausea or vomiting or diarrhea. COVID-19 can present with a mild to severe illness, although some people infected with COVID-19 may have no symptoms at all. 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. Based on preliminary data, the median incubation period is approximately 5 days. but may range 2-14 days. For further information on the symptoms of COVID-19, please see the link provided in "Where can I go for updates and more information?" section at the end of this document.

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

This test is to be performed using human nasopharyngeal swab, anterior nasal swab, and saliva specimens that were collected and frozen from individuals consistent with the EUA.

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 Simoa SARS-CoV-2 N Protein Antigen Test can be used to test nasopharyngeal swab and anterior nasal swab specimens collected and frozen in Huachenyang iClean Viral Transport Medium (VTM), CDC's formulation of VTM, normal saline, or phosphate buffered saline (PBS) from individuals who are suspected of COVID-19 by their healthcare provider within 14 days for nasopharyngeal swabs and within five (5) days of symptom onset for anterior nasal swab specimens.
- The Simoa SARS-CoV-2 N Protein Antigen Test can be used to test anterior nasal swab specimens collected and frozen in transport media only from individuals without symptoms or other epidemiological reasons to suspect COVID-19, when tested twice over three days with at least 24 hours and no more than 48 hours between tests.
- The Simoa SARS-CoV-2 N Protein Antigen Test can be used to test saliva specimens that have been collected and frozen from individuals who are suspected of COVID-19 by their healthcare provider within seven (7) days of symptom onset.
- The Simoa SARS-CoV-2 N Protein Antigen Test is only authorized for use in laboratories certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA), 42 U.S.C. §263a, that meet the requirements to perform moderate or high complexity tests.
- Please refer to the Simoa SARS-CoV-2 N Protein Antigen Test instructions for use for additional information.

Specimens should be collected with appropriate infection control precautions. Current guidance for infection control precautions for COVID-19 is available at the

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CDC's website (see links provided in "Where can I go for updates and more information?" section).

Use appropriate personal protective equipment when collecting and handling specimens from individuals suspected of having COVID-19 as outlined in the CDC Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 (COVID-19). For additional information, refer to CDC Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Persons Under Investigation (PUIs) for Coronavirus Disease 2019 (COVID-19) (see links provided in "Where can I go for updates and more information?" section).

#### What does it mean if the specimen tests positive for the virus that causes COVID-19?

A positive test result for COVID-19 indicates that antigens from SARS-CoV-2 were detected, and the patient is infected with the virus and presumed to be contagious. Laboratory test results should always be considered in the context of clinical observations and epidemiological data in making a final diagnosis and patient management decisions. Patient management should follow current CDC guidelines.

The Simoa SARS-CoV-2 N Protein Antigen Test has been designed to minimize the likelihood of false positive test results. However, in the event of a false positive result, risks to patients 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 may increase contact with other potentially COVID-19 patients, limits in the ability to work, delayed diagnosis and treatment for the true infection causing the symptoms, unnecessary prescription of a treatment or therapy, or other unintended adverse effects.

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

## What does it mean if the specimen tests negative for the virus that causes COVID-19?

A negative test result for this test means that antigens from SARS-CoV-2 were not present in the specimen

above the clinical cutoff. 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, including infection control decisions. Antigen tests are known to be less sensitive than molecular tests that detect viral nucleic acids.

The amount of antigen in a sample may decrease as the duration of illness increases. Nasopharyngeal specimens collected after day 14 of illness, saliva specimens collected after 7 days, and anterior nasal swab specimens collected after day 5 of illness, may be more likely to be negative compared to a RT-PCR assay. Therefore, negative results from patients should be treated as presumptive and confirmed with a molecular assay, if necessary, for patient management.

When diagnostic testing is 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 tests for other causes of illness (e.g., other respiratory illness) are negative. If COVID-19 is still suspected based on exposure history together with other clinical findings, re-testing or testing with molecular methods should be considered by healthcare providers in consultation with public health authorities.

If a negative result is obtained with a saliva specimen and COVID-19 is still suspected based on exposure history together with other clinical findings, testing an alternative specimen type should be considered by healthcare providers in consultation with public health authorities.

Risks to a patient of a false negative result include: delay or lack of supportive treatment, lack of monitoring of infected individuals 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.

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A negative antigen test should not be the sole basis used to determine if a patient can end isolation precautions. For additional recommendations regarding infection control, refer to CDC's *Discontinuation of Isolation for Persons with COVID-19 Not in Healthcare Settings* (Interim Guidance) (see links provided in "Where can I go for updates and more information" section).

The performance of this test was established based on the evaluation of a limited number of clinical specimens that were collected and frozen between 07/10/2020 and 01/29/2021. The clinical performance has not been established in all circulating variants but is anticipated to be reflective of the prevalent variants in circulation at the time and location of the clinical evaluation. Performance at the time of testing may vary depending on the variants circulating, including newly emerging strains of SARS- CoV-2 and their prevalence, which change over time.

## What do I need to know about Serial Testing in Asymptomatic Individuals?

In asymptomatic patients, serial testing may assist in identifying infected individuals and facilitate timely infection control practices. A negative test result does not rule out infection but repeat testing over two or three days may decrease the risks of false negative results. Additional clinical studies are underway to assess the performance of rapid antigen tests when used with serial testing. An initial negative test result should be the first of a minimum of two tests. An asymptomatic individual undergoing serial testing with two or more negative results may require ongoing serial testing or confirmatory testing, depending on patient history and potential exposures. An asymptomatic individual undergoing serial testing with one or more positive results indicates that SARS-CoV-2 antigen is present but does not rule out coinfection with other pathogens.

Additional confirmatory testing with a molecular test for negative results may be necessary if there is a high likelihood of SARS-CoV-2 infection, such as an individual with a close contact with COVID-19 or with suspected exposure to COVID-19 or in communities with high prevalence of infection. Additional confirmatory testing with a molecular test for positive results may also

be necessary, if there is a low likelihood of SARS-CoV-2 infection, such as in individuals without known exposures to SARS-CoV-2 or residing in communities with low prevalence of infection. For additional recommendations regarding confirmation of antigen test results, please refer to the CDC's Interim Guidance for Antigen Testing for SARS-CoV-2 (see links provided in "Where can I go for updates and more information?" section).

#### 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 the virus that causes 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 diagnosing 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?

There are no approved available alternative antigen tests. Any tests that have received full marketing status (e.g., cleared, approved), as opposed to an EUA, by FDA can be found by searching the medical device databases here: <a href="https://www.fda.gov/medical-device-device-advice-comprehensive-regulatory-assistance/medical-device-databases">https://www.fda.gov/medical-device-databases</a>. A cleared or approved test should be used instead of a test made available under an EUA, when appropriate and available. FDA has issued EUAs for other tests that can be found at: <a href="https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization">https://www.fda.gov/emergency-use-authorization</a>.

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# Where can I go for updates and more information?

#### **CDC** webpages:

General: https://www.cdc.gov/coronavirus/2019-

ncov/index.html

Symptoms:

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

testing/symptoms.html

**Healthcare Professionals:** 

https://www.cdc.gov/coronavirus/2019-

nCoV/hcp/index.html

Information for Laboratories:

https://www.cdc.gov/coronavirus/2019-nCoV/lab/index.html

**Laboratory Biosafety:** 

https://www.cdc.gov/coronavirus/2019-nCoV/lab-biosafety-

guidelines.html

**Isolation Precautions in Healthcare Settings:** 

https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html

**Specimen Collection:** 

https://www.cdc.gov/coronavirus/2019-

nCoV/lab/guidelines-clinical-specimens.html

Infection Control: https://www.cdc.gov/coronavirus/2019-

ncov/php/infection-control.html

**Discontinuation of Isolation:** 

https://www.cdc.gov/coronavirus/2019-

ncov/hcp/disposition-in-home-patients.html

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

Interim Guidance for Antigen Testing for SARS-CoV-2: https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-

tests-guidelines.html

#### FDA webpages:

General: www.fda.gov/novelcoronavirus

**EUAs:**(includes links to fact sheet for individuals and manufacturer's instructions) <a href="https://www.fda.gov/medical-number-12">h

devices/coronavirus-disease-2019-covid-19-emergency-

use-authorizations-medical-devices/in-vitro-diagnostics-

<u>euas</u>

#### **Quanterix Corporation:**

900 Middlesex Turnpike

Building 1

Billerica, MA 01821 USA

Contact email: Customerservice@guanterix.com

Website: www.Quanterix.com