



Health Alert Network Message 21-81: B.1.1.529 (Omicron) SARS-CoV-2 Variant Message for Laboratories

Origination Date:
November 30, 2021

Revision Dates (List All Revision Dates):

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On November 26, 2021, the World Health Organization (WHO) classified a new variant, B.1.1.529, as a Variant of Concern and has named it Omicron. This new variant was first reported to the WHO by government officials in South Africa, and the number of cases of this variant appears to be increasing throughout the Republic of South Africa. To date, no cases of Omicron have been identified in Louisiana or the United States. However, confirmed cases have been identified in at least 15 countries as of November 29, 2021.

New information is still emerging, but Omicron includes multiple mutations across the SARS-CoV-2 genome, some of which may have concerning public health implications. There is concern this new variant may be more transmissible than previous strains and that Omicron may carry an increased risk of re-infection, compared to other variants of concern. We expect to learn more about Omicron in the coming days.

In addition, it appears that for one widely used PCR test platform (ThermoFisher TaqPath), one of the three target genes is not detected (called S gene dropout or S gene target failure=SGTF). As a result, this test can be used as marker for this variant, pending sequencing confirmation, in order to rapidly detect probable Omicron cases.

Action Steps for Laboratories

Laboratories performing an assay that identifies SGTF:

1. Labs with sequencing ability
 - a. Flag any occurrence of SGTF: ORF1ab positive, N gene positive, S gene negative and report to the Infectious Disease Epidemiology (IDEpi) hotline: 800-256-2748.
 - b. If the variant strain is detected through sequencing performed at your laboratory, call the IDEpi hotline (800-256-2748), and notify the OPH Laboratory at OPH.PublicHealthLab@la.gov and prepare to send residual specimen to the OPH Laboratory.
 - c. If you receive more samples than you will sequence, please send SGTF specimens to the OPH Laboratory.
2. Labs without sequencing ability
 - a. Flag any occurrence of SGTF: ORF1ab positive, N gene positive, S gene negative and report to the IDEpi hotline (800-256-2748).
 - b. Please send SGTF specimens to the OPH Laboratory.

Laboratories performing an assay that does not identify SGTF:

1. Labs with sequencing ability
 - a. If you receive more samples than you will sequence, send frozen extracted product from SARS-CoV-2 positive samples to the OPH laboratory. We will screen SGTF samples for you to prioritize your sequencing efforts.
 - b. If the variant strain is detected through sequencing performed at your laboratory, call the IDEpi hotline (800-256-2748), and notify the OPH Laboratory at OPH.PublicHealthLab@la.gov and prepare to send residual specimen to the OPH Laboratory.
2. Labs without sequencing ability
 - a. Send SARS-CoV-2 positive samples frozen to the OPH laboratory.

The OPH Laboratory uses STAT Courier for in state specimen shipping. Courier instructions can be found on the [OPH Website](#).

- Fill out and submit one [WGS Samples for Surveillance – Patient Deidentified](#) excel form for each shipment of specimens. Email the excel form to OPH.PublicHealthLab@la.gov and send a copy of the excel form with the shipment.
- In a screw cap tube, include at least 500 µL of original specimen for sequencing or 50 µL extracted product for SGTF screening. Remember, the Specimen ID on the form should match the Specimen ID on the sample tube.
- Prior to shipping, specimens should be frozen at $\leq -70^{\circ}\text{C}$ and shipped on dry ice (supplied with STAT courier).
- Samples should be packaged and shipped as Category B and all requirements for proper packaging and shipping should be observed.