



# Health Alert Network Message 21-02 Update: SARS CoV-2 Variant Message for Labs with Email Correction

**Origination Date:**  
*January 7, 2021*

**Revision Dates (List All Revision Dates):**  
*January 11, 2021*

## SARS-CoV-2 Virus Variant

In the United Kingdom, a new variant strain of SARS-CoV-2 (known as 20B/501Y.V1, VOC 202012/01, or B.1.1.7 lineage) emerged with an unusually large number of mutations. This variant has since been detected in numerous countries around the world, including the United States and Canada.

Preliminary epidemiologic indicators suggest that this variant is associated with increased transmissibility (i.e., more efficient and rapid transmission). Currently there is no evidence to suggest that the variant has any impact on the severity of disease or vaccine efficacy. However, new information about the virologic, epidemiologic, and clinical characteristics of this variant is rapidly emerging.

The SARS-CoV-2 VOC 202012/01” or “B.1.17” has not yet been identified through sequencing efforts in Louisiana. However, as most US infections have not been sequenced, the variant could already be in Louisiana without having been detected. In order to enhance surveillance efforts, Louisiana laboratories are asked to follow applicable actions steps below.

For more information, see [CDC’s Implications of the Emerging SARS-CoV-2 Variant VOC 202012/01](#).

### Action Steps for Laboratories

This variant has an N501Y mutation in the receptor binding domain of the spike protein at position 501, where amino acid asparagine (N) has been replaced with tyrosine (Y). One of the mutations (69-70del) associated with the UK variant is responsible for a ‘dropout’ in the S gene PCR target of certain assays, including the ThermoFisher TaqPath COVID-19 Combo Kit. This is identified by the following pattern: ORF1ab positive, N gene positive, S gene negative.

Laboratories performing the ThermoFisher TaqPath COVID-19 Combo Kit are asked to perform the following steps:

1. Notify the OPH Laboratory at [OPH.PublicHealthLab@la.gov](mailto:OPH.PublicHealthLab@la.gov) (**CORRECTED**) to identify your facility as a ThermoFisher TaqPath COVID-19 Combo Kit user so important updates, including shipping instructions, can be sent to you quickly. Include primary and secondary contact name, phone number and email address. Please also identify if your facility is currently performing next generation sequencing (NGS) on COVID-19 specimens.

2. Flag any occurrence of the 'dropout' S gene pattern: ORF1ab positive (Ct < 30), N gene positive (Ct < 30), S gene negative
3. Report any instances of that pattern to the OPH Laboratory at [OPH.PublicHealthLab@la.gov](mailto:OPH.PublicHealthLab@la.gov) (**CORRECTED**) and CDC at [EOCevent177@cdc.gov](mailto:EOCevent177@cdc.gov) .
4. If residual specimen is available, either perform NGS locally or submit the specimen to the OPH Laboratory for coordinated shipping to CDC for sequencing and further characterization.
5. If the variant strain is detected through NGS performed at your laboratory, notify the OPH Laboratory at [OPH.PublicHealthLab@la.gov](mailto:OPH.PublicHealthLab@la.gov) (**CORRECTED**) and CDC at [EOCevent177@cdc.gov](mailto:EOCevent177@cdc.gov) and prepare to send residual specimen to the OPH Laboratory for possible shipping to CDC.

The OPH Laboratory uses STAT Courier for in state specimen shipping. Courier instructions and a copy of the CDC specimen submission form (CDC 50.34) will be provided upon facility identification (step #1 above).

- Fill out and submit one CDC specimen submission form for each specimen. Remember to include your organization and specimen identification number in the Original Submitter block of the form.
- In a screw cap tube, include at least 500 µL of specimen for sequencing. Label the tube with a minimum of the patient's first and last name and your specimen identification number.
- 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.