

HEALTH ALERT: New Fast-Spreading Variant of SARS-CoV-2 Identified *December 29, 2020*

A variant SARS-CoV-2 virus with multiple mutations in the spike protein (S) coding region has recently been identified in the United Kingdom, several other European countries, the Middle East, Southeast Asia and Oceania. **Preliminary analysis in the United Kingdom (UK) suggests that this variant is significantly more transmissible than previously circulating variants, with an estimated potential to increase the reproductive number (R) by 0.4 or greater, and with an estimated increased transmissibility of up to 70%.**

The variant is referred to as “SARS-CoV-2 VOC 202012/01” (i.e., the first variant of concern from 2020, December), or “B.1.1.7.” **At this time, there is no evidence that it is associated with increased disease severity.** Studies are currently ongoing in the UK to assess the ability of antibody from vaccinated persons to neutralize the variant virus and results are expected soon.

Although this variant virus has not yet been identified in California, it is likely already here. It was detected on Tuesday 12/29/2020 in a Colorado resident. Health care providers and laboratories are asked to submit specimens for whole genome sequencing to monitor for this variant and other emerging virus strains.

Please collect and submit specimens for whole genome sequencing from individuals with COVID-19 who meet at least one of the following criteria:

- Recent¹ travel to the UK or other European countries;
- Exposure to persons with recent¹ travel to the UK or other European countries;
- Marked differences in real-time RT-PCR viral target(s) cycle threshold (Ct) values (e.g., ORF1ab target Ct=27, N target Ct=26, and **S target NOT DETECTED**); or
- Possible re-infection (i.e. recurrence of symptoms with positive molecular testing or positive molecular testing 90 days or more after initial infection).

Specimen storage and shipping:

- Store all specimens at 4°C and ship to the San Mateo County Public Health Laboratory (225 37th Ave, Room #104, San Mateo, CA 94403) on cold pack according to [Category B shipping standards](#) within 24 to 72 hours of specimen collection.
- Not all SARS-CoV-2 assays use the S protein as a target. For example, the Thermo Fisher Scientific assay uses the S gene as a target but the Hologic’s Panther Fusion System does not.
- Please indicate the name of the PCR platform, CT value results if available, COVID-19 vaccination history if applicable, as well as recent travel and exposure history, on the specimen submittal form.
- Specimens must be received between 8:00 am and 5:00 pm, Monday-Friday. Specimens will be sent to CDPH’s Viral and Rickettsial Diseases Laboratory (VRDL) for testing and must be accompanied by one [CDPH VRDL General Submittal Form](#) per specimen.
- For questions about specimen collection, storage or shipping, please contact the Public Health Laboratory at 650-573-2500.

For more information about this variant virus go to: <https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-emerging-variant.html>. For more information about possible re-infection go to: <https://www.cdc.gov/coronavirus/2019-ncov/php/reinfection.html>.

¹ Within 14 days of onset of symptoms or within 14 days of specimen collection if asymptomatic.

