CDPH Health Alert

SARS-CoV-2 Virus Variant Identified in the United Kingdom

December 28, 2020

The California Department of Public Health (CDPH) issued a health advisory to update providers about the emerging health threat in the United Kingdom and several European Countries where a variant SARS-CoV-2 virus with multiple mutations in the spike protein (S) coding region was recently identified. The spike protein is responsible for viral adhesion to cells and this variant appears to bind more effectively to human ACE2 receptor, which could make it more infectious (i.e., better able to cause infection when it reaches a human host).

Currently, this variant virus has not been identified in California or the United States. However, the California Department of Public Health (CDPH) requests that health care providers take several steps **to help collect specimens for genetic sequencing to monitor for this and other variant virus strains**.

Instructions for how to identify patients who meet criteria for specimen collection and how to submit specimens is included in the complete CDPH notification included below.

Please contact the San Francisco Department of Public Health at (415) 554-2830 with any suspected cases that meet these criteria for specimen submission.

Resources:

Information about this variant virus is available here: https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-emerging-variant.html.

To view this and other health advisories, alerts, updates and vax facts, visit our Health Alerts webpage at https://www.sfcdcp.org/health-alerts-emergencies/health-alerts/

See www.sfcdcp.org/covid19hcp for additional COVID-19 information and guidance for San Francisco health care providers.

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California Department of Public Health

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Health Alert

SARS-CoV-2 virus variant identified in the United Kingdom

December 22, 2020

Recently, a variant SARS-CoV-2 virus with multiple mutations in the spike protein (S) coding region has been identified in the United Kingdom and several European countries. The spike protein is responsible for viral adhesion to cells and this variant appears to bind more effectively to human ACE2 receptor, which could make it more infectious (i.e., better able to cause infection when it reaches a human host). The spike protein is also a major antigenic region for the human immune response. Information about this variant virus is available here: https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-emerging-variant.html.

Information about the clinical and epidemiologic impacts of the mutations in this variant virus is very limited. At this time, there is no evidence that this variant is associated with increased disease severity or that COVID-19 vaccines will offer less protection against this variant. Studies are currently ongoing in the United Kingdom to assess the ability of antibody from vaccinated persons to neutralize the variant virus and results are expected soon.

Currently, this variant virus has not been identified in California or the United States. However, the California Department of Public Health (CDPH) requests that health care providers take several steps to help collect specimens for genetic sequencing to monitor for this and other variant virus strains.

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

- Recent travel to the United Kingdom or Europe;
- Exposure to persons with recent travel to the United Kingdom or Europe;
- 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[1]).

Specimens can be submitted to the CDPH Viral and Rickettsial Disease Laboratory (VRDL) for whole genome sequencing and analysis. Please email NovelVirus@cdph.ca.gov for assistance in both evaluation and specimen submission.

[1] For more information, see: https://www.cdc.gov/coronavirus/2019-ncov/php/reinfection.html