To: CAHAN San Diego Participants  
Date: December 28, 2020  
From: Public Health Services

Health Advisory Update #20: SARS-CoV-2 Virus Variant Identified in the United Kingdom

Key Messages
- Please see attached information from the California Department of Public Health (CDPH) regarding a new SARS-CoV-2 variant identified in the United Kingdom. Providers are requested to immediately contact the County of San Diego Public Health Epidemiology at (619) 692-8499 (or (858) 565-5255 during afterhours, weekends, or holidays) about any individuals with confirmed COVID-19 who meet 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).
- County Epidemiology and the Public Health Laboratory will work with the provider to have patient specimens collected from the patient and appropriate forms submitted for whole genome sequencing and analysis.

General public inquiries about COVID-19 should be directed to 2-1-1 San Diego or to the County COVID-19 website. Thank you for your participation.

CAHAN San Diego  
County of San Diego Health & Human Services Agency  
Epidemiology and Immunization Services Branch  
Phone: (619) 692-8499; Fax: (858) 715-6458  
Urgent Phone for pm/weekends/holidays: (858) 565-5255  
E-mail: cahan@sdcounty.ca.gov  
Secure Website: https://member.everbridge.net/892807736722952/login  
Public Website: http://www.cahansandiego.com
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 infection1).

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

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