

**Communicable Disease Epidemiology
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**Health Advisory: Updated Reporting Criteria for SARS-CoV-2 Variants of Concern (VOC) Surveillance
in King County, March 22, 2021**

This is an update to a previous Health Advisory, dated February 24, 2021. New and updated recommendations are highlighted below.

Washington State Department of Health (DOH) is increasing capacity for whole genome sequencing of priority SARS-CoV-2 specimens. In this effort, DOH has broadened criteria for submission of isolates for sequencing to be conducted at Washington State Public Health Laboratories (PHL), as well as at partner laboratories. The following specimen types are acceptable to submit for sequencing:

- RNA extract (preferred)
- Nasal swab, nasopharyngeal swab, or mid-turbinate swab in VTM/UTM or transport medium
- Lower respiratory tract fluid (BAL, tracheal aspirate, or sputum) – if intubated (these specimen types will be held until sequencing is available at PHL)

Action Requested:

- **Be aware that infections with all currently CDC classified SARS-CoV-2 Variants of Concern (VOC) have been identified in King County residents through whole genome sequencing since the end of January 2021.**
- **Support surveillance for possible VOCs by reporting via email to covidtestingstrategy@kingcounty.gov cases of SARS-CoV-2 infection that meet the following criteria below for WGS:**
 - **Suspected COVID-19 vaccine breakthrough**, defined as:
 - All doses in vaccine series administered, and
 - ≥14 days have elapsed between the final vaccine dose and the specimen collection date
 - **Specimens positive for “S-dropout”** meaning the “S” RNA target, for the COVID spike protein, of the PCR platform is negative and the other RNA targets are positive (also called S gene target failure, SGTF). Only a limited number of PCR platforms are able to detect this
 - **UPDATED:** Any suspected **reinfection case**, regardless of whether prior sample available (repeat PCR positive test ≥90 days after initial PCR positive test)
 - **UPDATED:** Any case reporting **international travel in the 14 days prior to symptom onset** (or specimen collection date if asymptomatic)
 - **NEW: Outbreaks** concerning for variants (submit 3 specimens from the outbreak)
 - Examples include fast spreading large outbreaks or increased hospitalizations from an outbreak
 - **NEW: Unusual clinical presentations** that may be associated with more severe or different clinical syndromes. Examples include:
 - Critical illness or death in a previously healthy child or young adult (age <40) and/or other unusual clinical presentations identified by clinicians or LHJs

- **NEW: Suspected cases of zoonotic transmission**
- **Include the following information in your email. If you are unable to securely send protected health information, please note this in your email and we can call you to get the remaining information:**
 - Name and date of birth of person tested
 - Name/manufacturer of vaccine given and dates of each dose
 - Name of laboratory
 - Dates of travel and to where
 - Collection dates of positive specimens
 - Reason for concern
- **If your facility routinely performs screening testing of healthcare staff or case finding testing in response to cases or clusters of COVID-19 in your facility, PLEASE CONTINUE to test individuals who have completed vaccination as you would if they were not vaccinated.**
- **For laboratories, please support surveillance for possible VOC's by continuing to submit cases of identified "S-drop out" and by completing this form [Submission Form \(wa.gov\)](https://www.doh.wa.gov/Portals/1/Documents/5240/SCSI-2019-nCoV.pdf) and submitting samples to DoH upon request from Public Health.**
- **Important considerations:**
 - Specimens must have a CT value <30 to meet criteria for sequencing
 - If CT values are unavailable samples will still be accepted
 - All specimen types should be frozen at <-70 °C and shipped on dry ice.
 - <https://www.doh.wa.gov/Portals/1/Documents/5240/SCSI-2019-nCoV.pdf>

Background: To date, Public Health – Seattle & King County has confirmed cases of all currently CDC classified SARS-CoV-2 VOC among King County residents (Note: variants classified as VOC continue to rapidly evolve. As of March 22, 2021, this includes the B.1.1.7, B.1.351, P.1, B.1.427, and B.1.429 VOC). Given that <6% of all positive SARS-CoV-2 samples are sequenced statewide, the number of cases of infection with a SARS-CoV-2 VOC identified likely represents a small proportion of the true number of VOC infections in our area. Designation of a variant as a VOC is based on evidence that that they can be more transmissible, lead to more severe disease, or have the ability to evade the immune response in those with a history of previous infection or vaccination. The B.1.1.7 variant is currently expected to become the predominant strain in the United States in the coming weeks. Intensifying surveillance efforts and early reporting by healthcare providers and laboratories of possible cases of infection with any VOC helps inform our understanding of the epidemiology COVID-19 in King County and may have implications for treatment and vaccine program strategy.

Resources:

[Science Brief: Emerging SARS-CoV-2 Variants | CDC](#)
[SARS-CoV-2 Variants of Concern | CDC](#)