

## COVID-19 Variant of Concern Interim Guidance

Updated January 29, 2021

### Background:

In response to the evolving situation related to COVID-19 variants of concern (VOCs), the Ministry of Health is providing interim updated case, contact and outbreak management guidance for public health units (PHUs) for cases that screen positive for VOCs/associated mutations in an effort to mitigate further community transmission.

A VOC is a mutation in the SARS-CoV-2 genome for which there is either conclusive or strong evidence that it will have an impact on public health and clinical practice, including transmission, virulence and vaccine efficacy. Mutations with a theoretical basis for impact on public health and clinical outcomes but without evidence of impact can be described as “mutations to follow”. National case definitions are expected in the near future.

Three notable VOCs currently circulating include the B.1.1.7 (501Y.V1) (first identified in the United Kingdom (UK)), which has been identified in Ontario and for which the most data exists; the 501Y.V2 variant first identified in South Africa; and the P.1 variant first identified in Brazil. Information on these variants is rapidly evolving, particularly for B.1.1.7. There is growing international evidence of increased transmissibility for all three VOCs, emerging evidence of an increased risk of death from B.1.1.7, and increased risk of vaccine escape and reinfection with the E484 mutation found in 501Y.V2 and P.1. The increased transmissibility has been associated with significant strain on affected public health and health care systems. Early anecdotal experience in Ontario indicates that the incubation period can be shorter (i.e., less than two days in some cases), resulting in rapid transmission.

The Ontario laboratory network is currently working to increase screening for VOCs in SARS-CoV2 positive specimens and conducting further analysis on all VOC screen-positive specimens. Timely reporting of VOC screen positive results to health units will support intensified public health response to limit further transmission. However, at this point, not all positive specimens are screened for VOCs. Additionally, timing from positive specimen result to VOC screen positive can be variable, and may not be timely enough for enhanced contact management in response to identification of a VOC. As such, effective public health measures at the population level, coupled with enhanced measures for all COVID-19 cases and contacts, are also needed to address VOCs.

At this time, there is evidence of the presence of B.1.1.7 in [multiple health units](#) and ongoing community transmission in parts of southern Ontario. There is also emerging evidence from Dynacare testing of specimens in and around the York region that the proportion of specimens with [S-gene target failure](#) (a highly specific marker of potential VOC mutation) is **doubling every two weeks**. Ongoing investigations are underway to further characterize the extent and spread of VOCs across the province.

The overall goal is to stop/slow the spread of VOCs to the greatest extent possible to mitigate impacts on hospitals and the broader health system, and to mitigate the impacts on settings and communities where people are likely to be disproportionately affected. This includes containment to the greatest extent possible in regions of Ontario where VOCs have yet to be detected, and mitigation where VOC community transmission is occurring.

### Updated interim guidance for public health units:

Given this evidence, the attached Appendix details interim updated (as of January 29, 2021) case, contact and outbreak management guidance for **ALL confirmed and probable cases of COVID-19**, as well as **additional guidance for VOC screen positive cases when timely intervention is feasible** for the case, contacts, and/or outbreaks. These enhanced interventions should be added on top of routine case and contact management as outlined in the [Management of Cases and Contacts of COVID-19 in Ontario](#).

Due to the need for more intensive public health response related to VOCs, PHUs can refer to [Appendix 10: Case and Contact management COVID-19 Surge Support Model](#) for evidence-informed modifications to case and contact management practices in an effort to ensure that all Ontarians receive increased consistency in the level of service regardless of jurisdiction. Appendix 10 also enumerates **high Priority Risk Settings for Transmission (Table 3)** that should be prioritized for health unit follow-up for all cases and their contacts, and particularly if an outbreak in those settings is associated with or strongly suspected to be caused by a VOC.

Health units identifying cases or outbreaks that warrant targeted testing for VOC (where screening has not been conducted), should follow instructions from the Public Health Ontario [COVID-19 Variants of Concern Test Information Sheet](#).

In addition to these measures, Ontario continues to work with federal counterparts to ensure measures are in place to limit the risk of further transmission from imported cases arriving in the country.

All public health measures to reduce transmission of the SARS-CoV-2 virus continue to apply to the new variants but require **more rigorous application** due to the increased transmission risk. It is important that every effort is made to implement effective mitigation measures in all settings where people interact. The introduction of VOCs will continue to influence public health measures decision-making.

Both travel-related and community transmission cases exist in Ontario, and province-wide strict adherence to all public health measures are necessary. Rapid vaccine roll-out continues for priority populations. As COVID-19 vaccine cannot be used for post-exposure prophylaxis, the identification of cases and outbreaks of VOCs does not alter current vaccine delivery plans.

Links to reference literature for background information including the following:

- [COVID-19 UK Variant VOC-202012/01 - What we know so far](#)
- [Review of “Transmission of SARS-CoV-2 Lineage B.1.1.7 in England: Insights from linking Epidemiological and Genetic Data.”](#)
- [Review of “NERVTAG Paper on COVID-19 variant of concern B.1.1.7”](#)
- [Risk related to the spread of new SARS-CoV-2 variants of concern in the EU/EEA – first update”](#)
- [Comprehensive mapping of mutations to the SARS-CoV-2 receptor-binding domain that affect recognition by polyclonal human serum antibodies.](#)
- [Landscape analysis of escape variants identifies SARS-CoV-2 spike mutations that attenuate monoclonal and serum antibody neutralization.](#)
- [Spike E484K mutation in the first SARS-CoV-2 reinfection case confirmed in Brazil, 2020](#)
- [S-variant SARS-CoV-2 is associated with significantly higher viral loads in samples tested by ThermoFisher TaqPath RT-QPCR.](#)

For further support regarding case and contact management please contact the Ministry Emergency Operations Centre at [EOC.Operations.MOH@ontario.ca](mailto:EOC.Operations.MOH@ontario.ca).

## Appendix: Interim Case, Contact and Outbreak Management

UPDATED January 29, 2021

### Key Updates

- Updated information for management of all confirmed and probable cases
- Revised case and contact management for VOC screen positive cases
- Updated information for outbreak management in high priority settings
- Inclusion of general considerations for public messaging in response to VOC introduction

### Enhanced Contact Management for ALL cases in the Province:

- **Enhanced identification of contacts:** Have a **lower threshold for classifying contacts as high risk of exposure** and requiring quarantine, based on the [risk assessment](#) of exposure that considers duration, mask use, ventilation, etc. This includes, but is not limited to:
  - Face-to-face contact with a case within 2 metres for at least 15 minutes, regardless of whether case and/or contact are masking (lower intervals of time that are more than transient interactions may be used at health unit discretion)
  - Direct physical contact with a case
  - Direct care for a case without the use of recommended personal protective equipment
- **Enhanced asymptomatic testing recommendations:** The quarantine period for high-risk exposure contacts remains at 14 days. Recommend all high risk of exposure contacts **repeat testing on or after day 10 of quarantine** if their initial test was collected between days 0-6 of quarantine. Repeat testing is not recommended if the initial test was on or after day 7 of quarantine. Contact should be tested/retested at any time if symptoms develop.
  - Health units are generally not required to ensure contacts are tested or follow up on results of testing with contacts (unless necessary for outbreak management). While contacts should be encouraged to seek testing for COVID-19, completion of the test is not required prior to exit from quarantine.
- High risk of exposure contacts that **develop symptoms should be managed as probable cases** and have contact tracing initiated prior to testing results being available. Further contact management may be discontinued if the probable case subsequently tests negative.
- As part of routine contact follow up, counsel contacts to tell their household members to stay home except for essential reasons while the contact is quarantining, especially if the contact has not been tested yet / is waiting for test results. (For additional messaging, see General Considerations to Inform Public Messaging below).
- **Support cases and contacts with isolation and quarantine measures**, including consideration of:
  - Use of isolation facilities
  - Use of community supports and agencies
  - Psychosocial supports
  - Courier, delivery supports for food and necessities

## Enhanced Case Management for VOC Screen Positive Cases

- To support provincial surveillance and to inform broad public health measures, prioritize obtaining and reporting case details for VOC cases, particularly travel history, other potential sources of acquisition, association with outbreaks, contacts, outcomes and medical risk factors.
- Prioritize case entry as per Public Health Ontario's Enhanced Surveillance Directive.
- If potential source cases for the VOC case are identified, attempt to submit their positive specimen for further testing by following [COVID-19 Variants of Concern Test Information Sheet](#).
- Once a VOC is identified as part of an outbreak or cluster, additional testing for VOCs among cases is not required, and particularly where results will not change public health management.
- Case and contact follow-up should be prioritized where the case is identified as VOC screen positive and there is an opportunity to interrupt transmission into a community. Additional considerations:
  - Results of VOC screening must be available within the contact follow-up period to be actionable for the health unit.
  - Ensuring completeness of case and contact management is warranted for regions with lower overall COVID-19 prevalence, and/or in regions where existing community transmission of VOCs is less likely,
  - Ensuring completeness of case and contact management is also warranted for high risk settings for transmission, where feasible, in all other jurisdictions.

## Outbreak Management for All High Priority Risk Settings

- Consider VOC screening (if not already conducted as per VOC screening criteria) for the first case in any of the Priority Risk Settings for Transmission. Up to the first three specimens may be submitted for VOC screening for outbreaks by following [COVID-19 Variants of Concern Test Information Sheet](#).
- At this time, there is no change to infection prevention and control (IPAC) measures recommended for COVID-19 based on the identification of a VOC as part of the outbreak. Health units should continue to follow setting-specific outbreak guidance.
- Enhanced application, adherence and monitoring of IPAC measures is required in contained settings with ongoing risk of transmission (e.g., long-term care facilities, correctional facilities), consider repeat prevalence testing of previously negative individuals in the outbreak every 3-4 days to assess for rapid spread of infection
- Restrict staff from working in other locations
- For health care, long-term care and retirement home settings, avoid use of staff, students or volunteers that are not adequately trained in IPAC measures
- Support cases and contacts with isolation and quarantine measures, including consideration of
  - Use of isolation facilities
  - Use of community supports and agencies
  - Psychosocial supports
  - Courier, delivery supports for food and necessities

## **General Considerations to Inform Public Messaging on Intensified Case and Contact Management in Response to VOC Introduction:**

- Variants of concern are here in Ontario and urgent efforts by all are needed to slow their spread to protect our health system and our most vulnerable
- Increased transmissibility of variants means it will take more intensive effort of the same public health practices to prevent transmitting infection
- Households have the highest risk of transmission from a case.
  - Household members of someone who is quarantining as a high-risk contact should stay at home except for essential reasons, especially while the quarantining person is waiting for test results.
  - Household members of someone with symptoms of COVID-19 should stay at home, until the symptomatic individual receives a negative test result, except for essential reasons.
  - Staying at home, except for essential reasons, includes: no non-essential visitors, no non-essential errands, exercise alone or only with people you live with, wear a mask if you need to go out for essential reasons and if you may be less than 2 metres apart from others, work from home if you can, and follow local rules about other children in the home attending school / child care.
- Cases and contacts require sufficient supports to isolate and quarantine, and community agencies and other supports should be leveraged as much as possible to support self-isolation.