



Interim Guidance for Infection Prevention and Control of SARS-CoV-2 Variants of Concern for Health Care Settings

1st revision: April 2021

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NOTES: This document is intended to provide best practices only.

Health care settings are encouraged to work towards these best practices in an effort to improve quality of care.

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The evidence in this document is current to March, 2021. New material in this revision is summarized in the table below.

Summary of amendments in 1st revision:

Revision number	Date of Implementation	Description of Major Changes	Page
1	March 2021	Additional information on patient mask use	10
1	March 2021	Removed the recommendation that the health care setting should provide patients with a medical mask.	15

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Abbreviations

AGMP	aerosol-generating medical procedure
COVID-19	coronavirus disease 2019
HVAC	heating, ventilation and air conditioning
IPAC	infection prevention and control
NVSC2	non-variant SARS-CoV-2
PPE	personal protective equipment
SARS-CoV-2	severe acute respiratory syndrome coronavirus 2
VOC	variant of concern

Glossary of Terms

Aerosol: Small droplet of moisture that may carry microorganisms. Aerosols may be light enough to remain suspended in the air for short periods of time, allowing inhalation of the microorganism.

Audit: A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements, are implemented effectively and are suitable to achieve objectives.

Backward contact tracing: The process of retrospectively identifying the source of infection of the case under investigation in order to identify further cases and contacts. Backwards contact tracing involves searching for the source of the exposure to the case under investigation. Exposure of the case to any known COVID-19 case or symptomatic individual and a travel history over the previous 14 days should be sought. If a potential source case is identified, forward tracing from the newly identified source case may identify other positive cases. Backwards contact tracing for inpatients requires collaboration between infection prevention and control, occupational health and public health (to identify exposures prior to hospitalization). See also Forward contact tracing.

Cleaning: The physical removal of foreign material (e.g., dust, soil) and organic material (e.g., blood, secretions, excretions, microorganisms). Cleaning physically removes rather than kills microorganisms. It is accomplished with water, detergents and mechanical action.

Cohorting: The sharing of a room or ward by two or more clients/patients/residents who are either colonized or infected with the same microorganism; or the sharing of a room or ward by colonized or infected clients/patients/residents who have been assessed and found to be at low risk of dissemination, with roommates who are considered to be at low risk for acquisition.

Contact Precautions: Precautions used in addition to Routine Practices to reduce the risk of transmitting infectious agents via contact with an infectious person.

Disinfection: The inactivation of disease-producing microorganisms. Disinfection does not destroy bacterial spores. Medical equipment/devices must be cleaned thoroughly before effective disinfection can take place.

Droplet transmission: Transmission that occurs when the droplets that contain microorganisms are propelled a short distance (within 2 metres) through the air and are deposited on the mucous membranes of another person, leading to infection of the susceptible host. Droplets can also contaminate surfaces and contribute to Contact transmission.

Forward contact tracing: The process of identifying and quarantining contacts who were exposed to the case under investigation, in order to stop further transmission. Forward contact tracing involves identifying individuals with unprotected exposure to a case during the case's infectious period. See also Backward contact tracing.

Hand hygiene: A general term referring to any action of hand cleaning. Hand hygiene relates to the removal of visible soil and removal or killing of transient microorganisms from the hands. Hand hygiene may be accomplished using an alcohol-based hand rub or soap and running water. Hand hygiene includes surgical hand antisepsis.

Health care provider: Any person delivering care to a patient. This includes, but is not limited to, the following: emergency service workers, physicians, dentists, nurses, respiratory therapists and other health professionals, personal support workers, clinical instructors, students and home health care workers. In some non-acute settings, volunteers might provide care and would be included as health care providers. See also Staff.

Health care setting: Any location where health care is provided, including settings where emergency care is provided, hospitals, complex continuing care, rehabilitation hospitals, long-term care homes, mental health facilities, outpatient clinics, community health centres and clinics, physician offices, dental offices, offices of other health professionals and home health care.

Personal protective equipment (PPE): Clothing or equipment worn for protection against hazards.

Staff: Anyone conducting activities in settings where health care is provided, including but not limited to, health care providers.

Variant of concern (VOC): A variant of interest is a variant of concern if, through a comparative assessment, it has been demonstrated to be associated with: (i) increased transmissibility or detrimental change in COVID-19 epidemiology; (ii) increased virulence or change in clinical disease presentation; or (iii) decreased effectiveness of public health and social measures or available diagnostics, vaccines, therapeutics; OR assessed to be a variant of concern by World Health Organization (WHO) in consultation with the WHO SARS-CoV-2 Virus Evolution Working Group.¹

Preamble

This document provides interim guidance for how infection prevention and control (IPAC) practices in Ontario health care settings should be modified in light of the emergence of B.1.1.7 in Ontario, and the potential for the emergence of other known or as yet unknown variants of concern (VOCs). The IPAC approaches to coronavirus disease 2019 (COVID-19) in Ontario health care settings are based on implementation of a hierarchy of control measures as well as the use of Routine Practices and Additional Precautions.² However, the way that these measures have been operationalized varies widely depending on the specific setting (e.g., acute care hospitals, complex continuing care and rehabilitation hospitals, long-term care homes, and outpatient settings), and by the incidence of COVID-19 in different regions, with wide variation in disease burden³ across the province. As such it is outside the scope of this document to review all IPAC measures used to reduce risk. Instead we address if any of these measures need to be altered or enhanced based on our current understanding of these new VOCs. Information is emerging rapidly and this guidance may change as new information becomes available.

This document assumes that all health care settings have IPAC support and resources appropriate to the type of setting. It is also assumed that all health care settings have already implemented IPAC policies and procedures sufficient to effectively prevent the transmission of non-variant severe acute respiratory syndrome coronavirus 2 (NVSC2).

COVID-19 is a community-acquired disease and health care outbreaks occur following introduction of COVID-19 from the community. However, this document does not address public health measures aimed at controlling the new variant. **It is clear that the implementation of effective public health measures to control the transmission of COVID-19 in the community is the single most important step that can be taken to protect health care settings from COVID-19, including COVID-19 due to new and emerging variants.**

1. Background

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a coronavirus that emerged from China in December 2019 and causes COVID-19. Mutations in the genetic code of the SARS-CoV-2 virus are an expected finding as some degree of genetic change is common in most viruses but are not necessarily associated with increased transmissibility or disease severity.⁴ As we have learned from previous pandemics of zoonotic diseases such as influenza, it is anticipated that viral adaptation to the human host will occur, with ongoing mutation and changes in transmissibility and increases or decreases in disease severity.

SARS-CoV-2 variants of concern (VOC) associated with increased transmissibility have emerged and disseminated globally.^{5,6} These VOCs include B.1.1.7, 501Y.V2 (B.1.351), P.1 (501Y.V3) and others.^{7,8}

B.1.1.7 was initially identified in the United Kingdom (UK) but has disseminated globally,⁹ and is likely to become the predominant cause of COVID-19 in Ontario over the next few months.¹⁰

501Y.V2 was first identified in South Africa but has also disseminated globally.^{5,9} Cases have been identified in multiple provinces in Canada,¹¹ and multiple non-travel related cases have been reported in Ontario.¹² P.1 was first identified in Brazil and travel-related cases have been identified in other countries⁹ with several case reported in Ontario.¹²

As the pandemic continues and surveillance for VOC increases, additional VOC will be detected in Ontario. Up-to-date information of VOC identified in Ontario can be found at PHO's [COVID-19 Variants of Concern](#) page.

PIDAC has identified the following as key questions that must be answered to understand the potential impact of any new VOC:

- For each VOC, is the VOC associated with increased transmissibility compared with NVSC2?
- Do current diagnostic tests have sensitivity for detection of each of the VOC equivalent to that for NVSC2?
- Does infection with each of the VOC result in increased disease severity and higher case fatality as compared to infection with NVSC2?
- Does natural or vaccine-induced immunity to NVSC2 protect against infection and severe disease due to each VOC?

Evidence related to these questions is rapidly evolving, with the most current evidence relating to the B.1.1.7 VOC. The B.1.1.7 VOC is associated with increased transmissibility with estimates that B.1.1.7 VOC is 36% to 75% more transmissible than NVSC2.⁹ In the UK it took only a few months for the B.1.1.7 VOC to rise from <5% of all COVID-19 cases to become the predominant variant accounting for >70% of cases.⁹ The emergence of B.1.1.7 in many countries has been associated with rapid increases of community COVID-19 prevalence and rapid replacement of NVSC2 with B.1.1.7.¹³⁻¹⁷ However, the re-introduction of lockdown measures in response to the emergence of B.1.1.7 has been effective at

reducing transmission at the population level in several countries, including the UK.^{18,19} In Ontario in January and February, despite decreasing COVID-19 incidence following the implementation of public health measures including a provincial lockdown, the incidence of VOC cases has continued to rise.¹⁰

Some PCR-based tests designed to detect the SARS-CoV-2 S-gene fail to do so for B.1.1.7. However, as most PCR-based tests include >1 detection target, these tests can still diagnose COVID-19 in patients with the B.1.1.7 VOC. Tests that fail to detect the S-gene in patients with B.1.1.7 can provide a surrogate method of identifying B.1.1.7 through the detection of S-gene target failure. In the UK following the emergence of B.1.1.7, the detection of S-gene target failure is almost always due to infection with the B.1.1.7 VOC and provides a rapid surrogate to genome sequencing.^{20,21}

Based on preliminary evidence from the UK, B.1.1.7 may be associated with an increase in disease severity but further data are required to confirm this.²² There is no evidence at present that either re-infection or vaccine failure are more common due to B.1.1.7.^{13,23,24}

There is less information available with respect to 501Y.V2 and P.1. but their emergence in South Africa and Brazil, respectively, has been associated with replacement of NVSC2²⁵ and rapid increases in COVID-19 incidence.²⁶ There is concern about the level of neutralizing antibody titres targeting 501Y.V2 generated by natural immunity following infection with NVSV2 or vaccination with currently available vaccines.²⁷⁻³⁶ Reports from some vaccine trials suggest a reduction in vaccine efficacy in South Africa following the emergence of 501Y.V2 but the data are preliminary and have not been fully released.^{23,37-40} Additionally, some of these vaccine trials, as well as data from Brazil, suggest that re-infection with 501Y.V2 or P.1. may occur in individuals previously infected with NVSC2.⁴¹

Although all three VOC are likely associated with increased transmissibility, the mechanism for this increase is not known.^{9,42,43} Mutations in the viral spike protein are seen in all three VOC. The spike protein is responsible for binding to the ACE-2 receptor on human cells and for viral cell membrane fusion. Potential explanations for increased transmissibility include a higher viral load,^{44,45} or a shorter incubation period compared to NVSC2.^{44,45} There is no evidence that there is any difference in the mode(s) of transmission of these VOC different from what is seen for NVSC2.

2. IPAC Recommendations Related to SARS-CoV-2 Variants of Concern

In formulating this guidance, it is important to note that the initial management decisions for patients with suspected or confirmed COVID-19 will need to be made without knowledge of whether the patient is infected with a VOC, as it will take several days to screen for possible variants, and longer to get the sequencing results required to confirm the specific VOC involved. In most cases, it will be not be possible, or effective, to target specific IPAC measures only to patients with a confirmed VOC.

2.1 COVID-19 Screening, Diagnosis and Testing

There is already widespread community transmission of B.1.1.7 in Ontario¹² and B.1.1.7 is likely to become the primary cause of COVID-19 in Ontario over the next few months.¹⁰ The burden of disease due to the other known VOCs is lower but may also increase.¹² As long as the pandemic continues additional VOCs are likely to emerge, especially in areas where COVID-19 incidence is high. For these reasons, a travel history remains an important part of the assessment of COVID-19 patients (although local emergence of a novel VOC is also possible). Ongoing sequencing of specimens both related and unrelated to travel will be required for early detection of new and emerging VOCs.

All three recognized VOCs have multiple mutations in the spike protein although only B.1.1.7 is associated with spike protein target failure. Because most diagnostic tests approved for use in Canada either do not use the S gene as a target, or do not target the S gene exclusively, current tests can be used to diagnose COVID-19 in patients with either NVSC2 or any of the currently recognized VOCs—although these tests cannot distinguish between NVSC2 or VOC in most cases. The accuracy of PCR-based tests will need to be reassessed as new VOCs emerge.

Recommendations

- 1. Currently used PCR-based tests for COVID-19 can continue to be used for diagnosis despite the emergence of the B.1.1.7 and 501Y.V2 VOCs in Ontario.**
- 2. Patients with COVID-19 should be screened for the 501Y mutation and referred for whole genome sequencing based on the criteria for testing provided by the Public Health Ontario*.**

* Public Health Ontario has now recommended that all positive specimens be screened for the 501Y mutation and sequenced if positive.⁴⁶

2.2 Inter-Facility Transfer of Patients with VOC

Inter-facility transfers of COVID-19 patients may be made for medically necessary reasons (e.g., transfer of an acutely ill patient from long-term care to acute care, or transfer of a hospitalized patient from one hospital to another in order to receive specialized surgical services or support care such as extra-

corporeal membrane oxygenation). In other cases, transfers are made to offload pressures in hospitals experiencing COVID-19 surges that compromise their ability to provide quality medical care to patients due to case burden, outbreaks or staff shortages. In this situation, it is not clear whether the risk of ongoing transmission from the case will be increased or reduced through transfer to a safer health care setting.

Recommendations

- 3. Medically necessary transfers of patients with COVID-19 should continue to occur for patients with a known VOC.**
- 4. For transfers intended to off-load pressures in hospitals experiencing a COVID-19 surge, current regional processes for transfer which include discussions with local hospital IPAC, in consultation with public health, should determine whether transfer can proceed and the IPAC precautions required. Decisions will depend on an understanding of the specific VOC involved, the current epidemiology of the VOC in Ontario, and the status of the sending and receiving facility. However, in most situations necessary transfers should proceed with appropriate precautions and transfers should not be delayed because the patient's VOC status is unknown.**

2.3 Patient Placement

The B.1.1.7 VOC is not known to be associated with COVID-19 re-infection or vaccine failure.^{9,13,23,24} For 501Y.V2 preliminary data suggest there may be reduced vaccine efficacy and there are anecdotal reports of an increased re-infection risk.³⁹ There is also concern about the possibility of re-infection with P.1.^{41,47}

Recommendations

- 5. Patients with COVID-19 due to B.1.1.7 can be cohorted with other COVID-19 positive patients (as long as there are no additional contraindications to cohorting).**
- 6. Patients with COVID-19 due to B.1.1.7 can be cohorted with patients who have resolved COVID-19 within the previous 90 days (as long as there are no additional contraindications to cohorting).**
- 7. No recommendation for other VOCs can be made currently - but in the absence of further information patients with a known VOC other than B.1.1.7 should be in a private room whenever possible.**
- 8. The indications for the use of an airborne infection isolation room are the same for patients with VOCs and NVSC2.**

2.4 Personal Protective Equipment

There is evidence that B.1.1.7 is more transmissible than NVSC.^{9,20,43,48-50} It has been suggested that this may be due to a higher viral load in COVID-19 due to B.1.1.7 but results are conflicting.^{44,45,51} However, there is no evidence suggesting, and no anticipated change in the mode(s) of transmission of COVID-19

caused by B.1.1.7 or any other VOC. In response to the emergence of B.1.1.7, IPAC guidance in the UK has not changed and PPE recommendations are not different for B.1.1.7. COVID-19 burden in UK communities and health care settings is currently falling in response to the re-introduction of lockdown measures, despite the emergence of this new variant.

Recommendation

- 9. There is no recommended change in PPE practices related to the emergence of the B.1.1.7 VOC or other VOCs in Ontario.**

2.5 Duration of Precautions

Currently available epidemiological and virological data suggest that the infective period for patients with mild or moderate COVID-19 and without severe immunocompromise is less than 10 days in almost all cases. The recommendation to isolate patients with COVID-19 for 10 days provides an appropriate margin of safety and transmission after removal of precautions has not been reported. There are no data suggesting that the duration of infectivity for VOCs is longer than for NVSC2.

Recommendations

- 10. Outpatients and hospitalized patients with mild or moderate COVID-19 AND no severe immune compromise can be removed from Droplet and Contact Precautions 10 days from the onset of symptoms (or from their initial test positive date if asymptomatic), as long as fever has resolved and other symptoms are improving for at least 24 hours.⁵²**
- 11. Patients with severe COVID-19 requiring treatment in an intensive care unit or patients with severe immunocompromise can be removed from Droplet and Contact Precautions 20 days from the onset of symptoms (or from their initial test positive date if asymptomatic and immunocompromised) as long as fever has resolved and their clinical status is improving for at least 24 hours.⁵²**

2.6 Other IPAC Measures

Health care settings must ensure that all essential measures to control NVSC2 are in place immediately, or the risk of nosocomial transmission and outbreaks with VOCs will be substantial. Attention to the basics, including ensuring appropriate use of PPE, hand hygiene, physical distancing and environmental cleaning must be in place. Education and training of staff on Routine Practices and Additional Precautions, and on COVID-19–specific policies and procedures is also critical.

The following suggestions represent IPAC interventions that are important to reduce nosocomial transmission of COVID-19 but are often incompletely implemented. Attention to these areas is important to prevent nosocomial transmission, and is even more important given the emergence of VOCs.

Commonly overlooked areas associated with substantial transmission risk include break rooms and other spaces where staff congregate to eat and drink. Careful attention should be paid to ensure staff have sufficient break areas to allow physical distancing of at least 2 metres and to make sure that staff remain distanced during breaks, particularly when removing their masks to eat or drink. Masks should be removed for the minimum amount of time required and should be worn even in break rooms when not eating or drinking. Additionally, disposable face shields should be discarded prior to entering break spaces; reusable face shields should be appropriately cleaned, disinfected and safely stored prior to eating and drinking and not placed on surfaces where food and drink are also located.

Due to the duration of the pandemic and the workload in health care, pandemic fatigue can occur. A simultaneous decline in case burden across Ontario, combined with the emergence of VOCs, create a risky period in which relaxation of IPAC practices could allow nosocomial COVID-19 transmission. Continuous education and periodic audits can be helpful to maintain best practices. Where staff practices in areas where COVID-19 patients are commonly treated (e.g., ICU or ED in acute care hospitals; COVID-19 wards in acute care hospitals or rehabilitation/complex continuing care hospitals; or any facility experiencing an outbreak) are consistently poor, the use of a safety coach (i.e., individual trained by IPAC to observed IPAC practices including PPE selection and use including consistent masking, correct PPE donning and doffing, hand hygiene, and physical distancing) can improve practices substantially.

One important intervention that has been effective for NVSC2 is universal masking. While all health care facilities in Ontario require universal masking by staff, there may be wider variation in practice with respect to patient masking. Patient masking, where feasible, may be a useful risk reduction strategy to implement to prevent the transmission of SARS-CoV-2. Recognizing that in specific patient populations masking may be challenging (e.g., patients with dementia, some psychiatric conditions, moderate to severe hypoxia, paediatric patients), patient care should not be refused based on an inability of the patient to mask. However, these exceptions are rare and in the majority of cases patients are capable of masking.

As part of universal masking, health care workers and patients should wear an appropriately sized mask that covers both their nose, mouth and chin without gaps, and which remains in position without the need for repeated re-positioning.

Health care facilities and health care providers should provide patients with a medical mask if the patient does not have their own mask. As it may not be clear whether cloth masks worn by patients meet recommendations for acceptable mask design,⁵³ some health care facilities and providers may choose to provide patients with medical masks to replace their own personal masks.

Recommendations

12. Ensure that basic measures to prevent nosocomial COVID-19 are in place including universal masking, physical distancing, and hand hygiene.

13. Ensure that health care providers have sufficient break space where they can safely eat and drink and that protocols are in place to avoid crowding and ensure appropriate physical distancing and masking in these areas.

14. Where staff practices are inconsistent in high risk areas where suspected or confirmed COVID-19 patients are routinely treated consider using a safety coach.
15. Health care settings should ensure that patients are masked (unless there is a contraindication to masking or the patient is unable to mask) in all of the following situations except when the mask must be removed briefly for clinical purposes (e.g., for an oral exam or nasopharyngeal swab):
 - a. When visiting a client in their home.
 - b. In all areas of an outpatient health care facility including the exam room.
 - c. In all areas of an acute care hospital except within the patient room (see below).
16. Inpatient settings in acute care hospitals should also consider:
 - a. Having patients mask within their rooms when health care providers are in the room, or within 2 metres of the patient.
 - b. Having patients mask in multi-bed rooms if they are ambulatory and may come within 2 metres of another patient.
17. Resident masking may not be feasible for residents in many long term care homes. However, resident masking when outside the room should be supported when requested by the resident and where the resident is interested in, and able to, appropriately mask.
18. Visitors to health care settings should be reduced as per provincial and facility policies.⁵⁴ Essential visitors should be masked at all times when in the health care setting, including inside the patient's room.^{55,56}
19. Where health care settings expect patients to be masked, the health care setting should provide the patient with a medical mask.

2.7 Environmental Cleaning

Effective environmental cleaning is important to reduce the risk of SARS-CoV-2 transmission although indirect contact transmission via contaminated surfaces and equipment is not considered the primary mode of SARS-CoV-2 transmission.⁵⁷ SARS-CoV-2 does not survive for prolonged periods on most surfaces and is inactivated by hospital-grade disinfectants through routine cleaning processes. Health care settings should follow PIDAC's [*Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings*](#).⁵⁸

Recommendations

20. Health care facilities should have sufficient environmental cleaning resources to ensure a safe and clean environment and should have protocols in place for both routine cleaning and disinfection, and cleaning and disinfection for patients with COVID-19.

- 21. No changes in environmental cleaning protocols are required specific to patients with known VOC infection as compared to patients with NVSC2.⁵⁹**

2.8 Heating, Ventilation and Air Conditioning

SARS-CoV-2 transmission occurs predominantly through unprotected exposure of mucous membranes to respiratory droplets. Direct and indirect contact transmission may also play a lesser role in transmission, and transmission through small particle respiratory droplets or aerosols is possible under some conditions including during aerosol-generating medical procedures (AGMP) or via prolonged exposure in poorly ventilated spaces.⁵⁷

Recommendation

- 22. All health care facilities should review their HVAC systems and ensure they are in compliance with CSA Z317.2:19 or other regulations related to their facility type.⁶⁰**

2.9 Outbreak Management for VOCs

Guidance for outbreak management in acute and long-term care settings should be similar for VOCs and NVSC2. More aggressive containment measures are appropriate, however, for new variants that are not yet widely disseminated in Ontario especially those variants that may be associated with immune evasion and reduced vaccine efficacy. Currently this would include outbreaks due to all three VOCs; however, if further data confirm widespread local transmission of B.1.1.7, this may no longer be true for this variant. Consultation with IPAC and public health experts is appropriate for VOC outbreaks, particularly with uncommon or new VOCs.

When VOC transmissibility is higher, or where the serial interval may be reduced,²⁰ rapid transmission in the outbreak setting may occur. Therefore frequent symptom screening and testing of both patients and staff is essential.

Recommendations

- 23. A single possible nosocomial case of a suspected or confirmed VOC should trigger immediate testing of all patients and staff in the affected area.**
- 24. Facilities with a VOC outbreak should consult IPAC and public health experts particularly for new VOCs or VOCs not yet widely disseminated in Ontario.**
- 25. As soon as a COVID-19 outbreak within a health care facility is identified, testing of one to three COVID-19-positive cases for VOCs is recommended*.**
- 26. For VOC outbreaks, or for rapidly expanding outbreaks where VOC test results are not yet available, all patients and staff should be tested for COVID-19 frequently (e.g., every 3 to 5 days) and tests should be prioritized to ensure a rapid turn-around time to guide outbreak management.**
- 27. Timely forward and backwards contact tracing is essential for all COVID-19 outbreaks and must be performed rapidly in collaboration with IPAC, occupational health and safety, and public health**

(where facilities have these resources) and by public health at facilities that do not have adequate IPAC or occupational health and safety support.

28. Closing outbreak units to new admissions, avoiding non-essential transfers from outbreak units and restricting staff to outbreak units is recommended for respiratory virus outbreaks including COVID-19, but is particularly important for new and emerging VOCs.

* Public Health Ontario has now recommended that all positive specimens be screened for the 501Y mutation and sequenced if positive.⁴⁶

Appendix A: Summary of Recommendations

1. Currently used PCR-based tests for COVID-19 can continue to be used for diagnosis despite the emergence of the B.1.1.7 and 501Y.V2 VOCs in Ontario.
2. Patients with COVID-19 should be screened for the 501Y mutation and referred for whole genome sequencing based on the criteria for testing provided by the Public Health Ontario*.
3. Medically necessary transfers of patients with COVID-19 should continue to occur for patients with a known VOC.
4. For transfers intended to off-load pressures in hospitals experiencing a COVID-19 surge, current regional processes for transfer which include discussions with local hospital IPAC, in consultation with public health, should determine whether transfer can proceed and the IPAC precautions required. Decisions will depend on an understanding of the specific VOC involved, the current epidemiology of the VOC in Ontario, and the status of the sending and receiving facility. However, in most situations necessary transfers should proceed with appropriate precautions and transfers should not be delayed because the patient's VOC status is unknown.
5. Patients with COVID-19 due to B.1.1.7 can be cohorted with other COVID-19 positive patients (as long as there are no additional contraindications to cohorting).
6. Patients with COVID-19 due to B.1.1.7 can be cohorted with patients who have resolved COVID-19 within the previous 90 days (as long as there are no additional contraindications to cohorting).
7. No recommendation for other VOCs can be made currently - but in the absence of further information patients with a known VOC other than B.1.1.7 should be in a private room whenever possible.
8. The indications for the use of an airborne infection isolation room are the same for patients with VOCs and NVSC2.
9. There is no recommended change in PPE practices related to the emergence of the B.1.1.7 VOC or other VOCs in Ontario.
10. Outpatients and hospitalized patients with mild or moderate COVID-19 AND no severe immune compromise can be removed from Droplet and Contact Precautions 10 days from the onset of symptoms (or from their initial test positive date if asymptomatic), as long as fever has resolved and other symptoms are improving for at least 24 hours.⁵²
11. Patients with severe COVID-19 requiring treatment in an intensive care unit or patients with severe immunocompromise can be removed from Droplet and Contact Precautions 20 days from the onset of symptoms (or from their initial test positive date if asymptomatic and immunocompromised) as long as fever has resolved and their clinical status is improving for at least 24 hours.⁵²

12. Ensure that basic measures to prevent nosocomial COVID-19 are in place including universal masking, physical distancing, and hand hygiene.
13. Ensure that health care providers have sufficient break space where they can safely eat and drink and that protocols are in place to avoid crowding and ensure appropriate physical distancing and masking in these areas.
14. Where staff practices are inconsistent in high risk areas where suspected or confirmed COVID-19 patients are routinely treated consider using a safety coach.
15. Health care settings should ensure that patients are masked (unless there is a contraindication to masking or the patient is unable to mask) in all of the following situations except when the mask must be removed briefly for clinical purposes (e.g., for an oral exam or nasopharyngeal swab):
 - a. When visiting a client in their home.
 - b. In all areas of an outpatient health care facility including the exam room.
 - c. In all areas of an acute care hospital except within the patient room (see below).
16. Inpatient settings in acute care hospitals should also consider:
 - a. Having patients mask within their rooms when health care providers are in the room, or within 2 metres of the patient.
 - b. Having patients mask in multi-bed rooms if they are ambulatory and may come within 2 metres of another patient.
17. Resident masking may not be feasible for residents in many long term care homes. However, resident masking when outside the room should be supported when requested by the resident and where the resident is interested in, and able to, appropriately mask.
18. Visitors to health care settings should be reduced as per provincial and facility policies.⁵⁴ Essential visitors should be masked at all times when in the health care setting, including inside the patient's room.^{55,56}
19. Where health care settings expect patients to be masked, the health care setting should provide the patient with a medical mask.
20. Health care facilities should have sufficient environmental cleaning resources to ensure a safe and clean environment and should have protocols in place for both routine cleaning and disinfection, and cleaning and disinfection for patients with COVID-19.
21. No changes in environmental cleaning protocols are required specific to patients with known VOC infection as compared to patients with NVSC2.⁵⁹

22. All health care facilities should review their HVAC systems and ensure they are in compliance with CSA Z317.2:19 or other regulations related to their facility type.⁶⁰
23. A single possible nosocomial case of a suspected or confirmed VOC should trigger immediate testing of all patients and staff in the affected area.
24. Facilities with a VOC outbreak should consult IPAC and public health experts particularly for new VOCs or VOCs not yet widely disseminated in Ontario.
25. As soon as a COVID-19 outbreak within a health care facility is identified, testing of one to three COVID-19-positive cases for VOCs is recommended*.
26. For VOC outbreaks, or for rapidly expanding outbreaks where VOC test results are not yet available, all patients and staff should be tested for COVID-19 frequently (e.g., every 3 to 5 days) and tests should be prioritized to ensure a rapid turn-around time to guide outbreak management.
27. Timely forward and backwards contact tracing is essential for all COVID-19 outbreaks and must be performed rapidly in collaboration with IPAC, occupational health and safety, and public health (where facilities have these resources) and by public health at facilities that do not have adequate IPAC or occupational health and safety support.
28. Closing outbreak units to new admissions, avoiding non-essential transfers from outbreak units and restricting staff to outbreak units is recommended for respiratory virus outbreaks including COVID-19, but is particularly important for new and emerging VOCs.

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