



Interim Guidance on Infection Prevention and Control for Health Care Providers and Patients Vaccinated Against COVID-19 in Hospital and Long-Term Care Settings

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Public Health Ontario

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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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Abbreviations

AGMP	aerosol-generating medical procedure
COVID-19	coronavirus disease 2019
HCP	health care provider
IPAC	infection prevention and control
LTC	long-term care
LTCH	long-term care home
OHS	occupation health and safety
PPE	personal protective equipment
SARS-CoV-2	severe acute respiratory syndrome coronavirus 2
VOC	variant of concern

Glossary of Terms

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

Droplet Precautions: Precautions used in addition to Routine Practices for clients/patients/residents known or suspected to have an infection that can be transmitted by large infectious droplets.

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 Facility: A set of physical infrastructure elements supporting the delivery of health-related services. A health care facility does not include a client/patient/resident's home or physician/dentist/other health offices where health care may be provided.

Health care provider (HCP): 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 HCPs. 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](#).

Vaccinated persons: Those health care providers and patients who are fully vaccinated, i.e., having received ALL required doses of a Health Canada-approved COVID-19 vaccine and where 14 days have elapsed following the final vaccine dose.¹

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

Preamble

There are four coronavirus disease 2019 (COVID-19) vaccines approved for use in Canada,³ all of which provide significant protection against symptomatic COVID-19 and against severe COVID-19 requiring hospitalization.⁴⁻¹⁴ Preliminary evidence suggests that these vaccines will reduce COVID-19 transmission,¹⁵⁻³⁰ either by preventing infection by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or by reducing the incidence of symptomatic disease, which results in more transmission than asymptomatic COVID-19.³¹ The duration of this protection, and the impact of emerging variants of concern (VOC) on vaccine efficacy, is not yet fully established.

In Ontario, health care providers (HCPs) were an early priority group³² and all have been offered vaccination, although many remain unvaccinated or partially vaccinated.³³

In this context, questions arise as to which testing and infection prevention and control (IPAC) interventions are still required for vaccinated HCPs, and which are no longer indicated given the reduced risk in vaccinated HCPs. Similar questions will also arise for vaccinated patients as a greater proportion of the general population become vaccinated.

This document provides interim recommendations on if and how IPAC practices or occupational health and safety (OHS) practices should be modified when managing patients or HCP in acute care, post-acute care or LTC settings who are vaccinated against COVID-19. These recommendations will evolve as a larger proportion of the population are vaccinated and COVID-19 incidence declines, and as we gain a better understanding of how emerging VOC impact vaccine efficacy and of the impact of vaccination among different health care settings and patient populations. For the purpose of this document, HCPs and patients are considered vaccinated 14 days after the receipt of the last dose for any Health Canada-approved vaccine series (i.e., “fully-vaccinated”).

Unless specified, the management of HCPs or patients who are not fully vaccinated will be the same as for unvaccinated HCPs or patients. The term “patient” in this document includes individuals receiving health care services in the hospital and LTC settings.

Vaccinated persons (HCPs or patients) are those who are fully vaccinated, i.e., having received ALL required doses of a Health Canada-approved COVID-19 vaccine and where 14 days have elapsed following the final vaccine dose.

This document is intended for those who have a role in IPAC, patient safety, quality improvement, risk management, or OHS in acute care, post-acute care or LTC settings in Ontario. In addition, administrators and clinicians will also find the information in this document useful.

These recommendations should be interpreted alongside public health recommendations for the management of vaccinated (fully and partially) and unvaccinated individuals within the community.

1. Testing of Vaccinated HCPs and Patients

Given that none of the approved COVID-19 vaccines are 100 per cent effective,^{13,14,34-36} testing for COVID-19 will remain important indefinitely, although the indications for testing will evolve. For now, it is prudent to continue testing vaccinated HCPs and patients with COVID-19 symptoms and following high-risk exposures to a case of COVID-19.³⁷

Conversely, the probability of COVID-19 in non-exposed, asymptomatic individuals is much lower than in symptomatic individuals. It is not clear that pre-procedural or transfer testing was useful even for unvaccinated patients and HCPs.³⁸⁻⁴⁵ Vaccination will further reduce the likelihood of identifying COVID-19 in this population, resulting in a reduced pre-test probability and increasing the likelihood that positive results represent false positives. There are almost no situations where testing of vaccinated patients who are asymptomatic and non-exposed will be useful, with the possible exception of the outbreak setting.^{38,39,42} This is analogous to recommendations that already exempt individuals with resolved COVID-19 from some indications for asymptomatic testing. Vaccination should reduce the need for asymptomatic testing in vaccinated HCPs and patients going forwards.

Although testing of residents prior to admission to a LTCH remains mandated,⁴⁶ this testing is unlikely to be beneficial in vaccinated residents given both the reduced incidence of COVID-19 in vaccinated residents and the incubation period of SARS-CoV-2.

A summary of testing indications and recommendations for vaccinated patients and HCPs and is presented in [Table 1](#) and [Table 2](#).

Table 1. Recommendations for COVID-19 Testing for Vaccinated Patients

Conditions	PIDAC Recommendation	Current Guidance
Symptomatic	Recommended	Recommended
High-Risk Exposure	Recommended	Recommended
Point Prevalence Testing on an Outbreak Unit	Consider*	Recommended
Asymptomatic and Non-Exposed: on Transfer to an Acute or Post-Acute Care Facility	Not recommended [†]	Recommended [†]
Asymptomatic and Non-Exposed: Pre-Procedure	Not recommended [†]	Recommended when community incidence is not low

Conditions	PIDAC Recommendation	Current Guidance
Asymptomatic and Non-Exposed: Prior to Cancer Treatment Including Chemotherapy and Radiation Therapy	Not recommended [†]	Recommended
Prior to Admission or Re-Admission to LTCH	Not Recommended [†]	Mandated

* The yield of point prevalence testing in asymptomatic, vaccinated patients is low and positive tests most commonly represent prior positives. Point prevalence testing of patients is not required in most instances but should be considered in large or sustained outbreaks or when the outbreak is known or suspected to be due to a VOC potentially associated with reduced vaccine efficacy (e.g., P.1, B.1.351). Point prevalence testing may also be important in vaccinated patient populations that are highly immunocompromised and may not mount an effective immunological response to vaccination (e.g., bone marrow transplant unit).

[†] Ministry of Health guidance^{37,46} currently recommends testing for these indications. Although this guidance was developed prior to the availability of COVID-19 vaccine, it should continue to be followed until updated by the Ministry.

Table 2. Recommendations for COVID-19 Testing for Vaccinated HCPs

Conditions	PIDAC Recommendation	Current Guidance
Symptomatic	Recommended	Recommended
High-Risk Exposure	Recommended	Recommended
Point Prevalence Testing on an Outbreak Unit	Consider [‡]	Recommended
Asymptomatic testing (1-3 times per week) in LTCH	Not Recommended [§]	Mandated ⁴⁷

[‡] The yield of point prevalence testing in asymptomatic, fully-vaccinated HCP is low and positive tests most commonly represent prior positives. Point prevalence testing of HCP is not required in most instances but should be considered in large or sustained outbreaks or when the outbreak is known or suspected to be due to a VOC potentially associated with reduced vaccine efficacy (e.g., P.1, B.1.351).

[§] Ministry of Long-Term Care⁴⁷ currently requires testing for these indications

2. Routine Practices

During the pandemic, Routine Practices have been expanded to include universal masking by HCPs, visitors and, when feasible, patients.^{48,49} The routine use of eye protection when providing care to patients within a 2-metre (m) distance has also been adopted in some health care settings when COVID-19 incidence is high. Physical distancing of 2 m is also recommended, whenever feasible, in all health care settings.

We do not yet fully understand the level of protection provided by the vaccine or the degree to which it reduces transmission in LTC residents or inpatient populations including patients with immunocompromising conditions.^{14,36,50-56}

The emergence of VOC associated with reduced vaccine efficacy is also a concern.^{13,57-65}

Facilities should maintain their current approach to universal masking and physical distancing despite increased vaccination among HCPs.^{49,66,67}

3. Additional Precautions When Caring for Patients with Suspected or Confirmed COVID-19 and Patients Exposed to COVID-19

Currently, patients with suspected or confirmed COVID-19 are cared for in Droplet and Contact Precautions.^{48,49} Given that vaccination is not 100 per cent effective, Droplet and Contact Precautions will remain the minimum requirement necessary when providing care to any patient suspected or confirmed to have COVID-19 regardless of the vaccination status of the HCP. This is similar to the approach used for other vaccine preventable diseases such as measles, varicella or influenza where vaccinated HCPs are still expected to use appropriate personal protective equipment (PPE) when providing care.⁶⁸

Patients vaccinated against COVID-19 and exposed to COVID-19 through unprotected exposure to a confirmed case, or through exposure on an outbreak unit, should also be managed in Droplet and Contact Precautions.

4. Placement of Vaccinated Patients

Vaccination may be less effective in inpatients and LTCH residents as compared to HCPs and the population studied in vaccine trials and is not 100 per cent protective.^{50,51,69-73} Some emerging VOCs are also associated with reduced vaccine efficacy and effectiveness.^{13,57,60,62,65,74-77}

Asymptomatic, vaccinated patients must not be placed into a room in any of the following scenarios: (i) with a confirmed COVID-19 patient; (ii) with a suspect COVID-19 patient; and (iii) with an exposed patient to minimize the risk of transmission to the asymptomatic, vaccinated patient.

Asymptomatic vaccinated patients should not be transferred to or from an outbreak unit except for medically essential reasons (e.g., need to transfer to an outbreak ICU due to clinical deterioration and no other ICU has capacity in the facility).

Note: During significant COVID-19 surges, the movement of vaccinated patients onto or off outbreak units may need to be considered in some circumstances. This should only proceed after alternative options have been explored and in consultation with the local public health unit and IPAC as available. Vaccinated patients transferred to an outbreak unit should be informed regarding the reason for the transfer, the level of risk, and the precautions to reduce risk.

5. COVID-19 Vaccination for HCPs

HCPs are at risk of COVID-19 exposure in the community⁷⁸⁻⁸⁵ and the health care setting, and can transmit COVID-19 to their families, co-workers, and patients.⁸⁶⁻⁹⁴ Unvaccinated HCPs can introduce COVID-19 into facilities, trigger COVID-19 outbreaks, and cause nosocomial transmission of COVID-19 to patients and staff.⁵⁹ Vaccination of HCPs protects HCP from community and occupational transmission of COVID-19 and is critical to protect their health, and to minimize the risk of COVID-19 transmission to vulnerable populations. All HCPs without contraindications should be vaccinated to protect their vulnerable patients, as well as themselves, their families and their communities. All health care facilities and programs should educate their HCPs about the benefits of vaccination, address concerns about vaccine safety, and should adopt strategies to increase HCP vaccine confidence and vaccine uptake.⁹⁵ Health care facilities should aim for vaccination of all staff for the protection of both staff and patients.⁹⁶

6. Clinical Assignment of HCPs by Vaccination Status

Experience with COVID-19 transmission in health care settings has identified several common routes of transmission that result in the majority of nosocomial COVID-19 transmission including:

- Transmission from symptomatic patients to other patients or HCP when symptoms were not initially recognized as related to COVID-19.
- Transmission from presymptomatic patients to other patients and HCP prior to symptom-onset.
- Staff to staff transmission and staff to patient transmission, often from presymptomatic staff or staff with mild symptoms.

In some settings, insufficient training and implementation of basic IPAC and OHS procedures also contributed to nosocomial transmission of COVID-19.^{88,89,97-99}

While the above scenarios were common, transmission from known COVID-19 patients to staff on dedicated COVID-19 units, and transmission in COVID-19 testing centres is rare.⁸⁶

HCPs with COVID-19 can introduce COVID-19 into health care facilities resulting in nosocomial transmission and outbreaks. The risk for severe outcomes including death is substantially increased in LTCH residents and other inpatients who develop COVID-19 via nosocomial exposure due to their inherent risk factors for severe disease (i.e., older age, comorbid conditions and active medical illness). Transmission of COVID-19 from HCPs to high-risk patient populations such as transplant patients and patients in hemodialysis may result in patient deaths.^{93,94}

Vaccination of HCPs reduces this risk for patients. Given the risks to patients, who are not protected by PPE during the receipt of health care, HCPs who are eligible for vaccination have a professional and ethical obligation to receive a safe and effective COVID-19 vaccine.

6.1 Considerations for the Placement of HCP to Minimize COVID-19 Risk in HCP

IPAC measures must be implemented in all health care settings to protect HCPs from COVID-19. With implementation of these measures, including education, training and access to all required PPE, and implementation of recommended IPAC measures for the care of COVID-19 patients, HCPs can provide safe care to patients with suspected or confirmed COVID-19.

The burden of care related to COVID-19 patients is high, and adherence to recommended IPAC practices will protect HCPs from acquisition of COVID-19. While both vaccinated and unvaccinated staff can continue to provide care on outbreak units or facilities, on dedicated COVID-19 units, and to patients with suspected or confirmed COVID-19, vaccination provides an added level of protection and should be strongly encouraged.

6.2 Consideration for the Placement of HCP to Minimize COVID-19 Risk for Patients

It is not currently feasible for health care facilities to require that HCPs working with populations at increased risk of severe COVID-19 outcomes be vaccinated or to require that only vaccinated HCPs work on outbreak units.

7. Management of Vaccinated HCPs

7.1 HCPs Who Are Symptomatic

COVID-19 symptoms overlap with other transmissible respiratory illnesses and vaccination is not 100 per cent effective. Symptomatic HCPs should not continue to work regardless of vaccination status.

7.2 HCPs Exposed to COVID-19

It has been the practice throughout the pandemic to have HCPs with high-risk exposures isolate at home for 14 days from their last exposure.¹⁰⁰ This can be challenging when health care human resources are strained during COVID-19 surges or during recovery. In particular, while household attack rates are high for COVID-19, most brief unprotected workplace exposures have a much lower risk.

In this context, vaccination status should be taken into consideration as part of the OHS risk assessment performed when evaluating HCPs with a potential exposure to COVID-19 along with other predictors of transmission risk. Additional predictors of risk include the duration of the exposure, the proximity to the case, exposure to respiratory secretions, presence during an aerosol-generating medical procedure (AGMP), breaches in hand hygiene or PPE practices, infectivity of the case (e.g., symptomatic vs. asymptomatic, duration of illness prior to exposure), and exposure to a VOC associated with increased transmissibility or reduced vaccine efficacy. The possibility of reduced vaccine efficacy in HCPs with immunocompromising conditions (e.g., transplantation) should also be considered.⁵⁰

When vaccination status is considered as part of an individualized risk assessment, we anticipate that for most exposures involving fully vaccinated HCPs, a quarantine period at home would not be required except for the highest-risk exposures or for exposures from a source known to be infected with a VOC associated with reduced vaccine efficacy (e.g., P.1,^{60,74,75} B.1.351^{13,57,62,65,74,76,77}) (see [Table 3](#)). HCPs with high-risk exposures may be required to take additional precautionary measures including repeated testing while in the workplace. During COVID-19 surges associated with significant human resource limitations, a variety of strategies can be considered that balance risk and benefit including shortening the period of home quarantine, early return to work following a negative test, and repeated testing during the at-risk period. The approach in these situations will evolve over time as evidence and experience accumulates.

Table 3. Examples of How HCP Risk Might be Assessed and Managed Following Exposure to a Case of COVID-19[¶]

Exposure Example [#]	Level of Risk (HCP unvaccinated)	Level of Risk (HCP vaccinated)	Workplace Management of Vaccinated HCP ^{**}
Exposed to a case of COVID-19 in HCP's home	Very High	High	Work exclusion
Prolonged, close exposure to a HCP with COVID-19 when neither HCP were masked	Very High	High	Work exclusion
Close exposure to a HCP with COVID-19 when neither HCP were masked – but the exposure was not prolonged	Medium	Low	Workplace precautions if asymptomatic. Follow OHS guidance for COVID-19 testing and workplace precautions.
Provided prolonged direct care to an unmasked patient with COVID-19 without eye protection	High	Medium	Workplace precautions if asymptomatic. Follow OHS guidance for COVID-19 testing and workplace precautions.
Present during an AGMP on a patient with COVID-19; wore gown, gloves, face shield and a medical mask instead of an N95 respirator	Medium	Low	Workplace precautions if asymptomatic. Follow OHS guidance for COVID-19 testing and workplace precautions.

[¶] This table is not meant as a comprehensive guide to the management of exposed HCPs but rather to provide some examples of how vaccination status could be integrated into a risk assessment when OHS assessments are performed. Close exposure refers to exposure within 2 m; direct care implies hands-on care within 2 m.

[#] It is assumed that the exposure was not due to a VOC associated with significant reductions in vaccine efficacy and that the HCP does not have an immunocompromising condition that would reduce vaccine efficacy.

^{**} If facilities are not short-staffed due to COVID-19 waves, some facilities may choose to isolate HCP with the exposures described here at home.

7.3 HCPs Working on an Outbreak Unit

To prevent dissemination of infection to unaffected areas during outbreaks, it is recommended that HCPs do not work on other units or at other facilities when working on an outbreak unit.

This can be challenging during COVID-19 surges due to limited human resources or when individuals have a unique role within a given organization. While it remains prudent to restrict HCPs to the outbreak unit when feasible, vaccination status can be considered as a major determinant of risk. While this

should not be routine practice, when there are significant shortages of essential staff, and the outbreak appears to be limited in scope and/or coming under control, consideration could be given to the preferential re-assignment of vaccinated staff to other areas. HCPs should not move repeatedly back and forth between outbreak and non-outbreak units, however.

Similarly, vaccinated students and trainees on an outbreak unit who have reached the end of their rotation should notify OHS at their next rotation about their status. Trainees who play an essential role in clinical care should be managed in the same manner as other HCPs (as described above) and vaccination status should be considered as part of their risk assessment. For trainees who are not essential to the clinical service, a quarantine period is still recommended prior to resuming clinical training.

8. Recommendations

1. Symptomatic patients and symptomatic HCPs should be tested for COVID-19 regardless of vaccination status.
2. Patients and HCPs with high-risk exposure to a COVID-19 case should be tested for COVID-19 regardless of vaccination status.
3. Testing is not recommended for vaccinated patients or HCPs who are asymptomatic and do not have a known exposure to COVID-19 (e.g., pre-procedural testing, routine HCP testing).
4. Modifications of Routine Practices during the pandemic, including the use of universal masking in health care settings, continue to apply to HCPs and patients regardless of vaccination status.
5. HCPs must use Droplet and Contact Precautions as the minimum precautions when providing care to patients with confirmed or suspected COVID regardless of the HCP's vaccination status.
6. Patients with COVID-19 symptoms or with a high-risk exposure to COVID-19 should be cared for in Droplet and Contact Precautions regardless of their vaccination status, whenever feasible.
7. Asymptomatic, patients not known to be COVID-19–positive should not be placed in a multibed room with a patient with confirmed COVID-19, suspected COVID-19, or a patient with a high-risk COVID-19 exposure.
8. All eligible HCPs should be vaccinated against COVID-19.
9. All health care settings should encourage HCPs to be vaccinated, provide education and programs to boost vaccine confidence, and should facilitate HCP vaccination (e.g., assist with booking vaccine appointments, ensure time off and transportation if required, etc.).
10. Both vaccinated and unvaccinated HCPs can provide care to suspected and confirmed COVID-19 patients with appropriate training and PPE.
11. Symptomatic HCPs, regardless of vaccination status, should be isolated at home until test negative and cleared to return to work.
12. HCP vaccination status should be considered along with other factors when evaluating HCPs following an occupational or community COVID-19 exposure.
13. HCPs working on a COVID-19 outbreak unit should be restricted to the unit for the duration of the outbreak regardless of vaccination. However, during a COVID-19 surge associated with severe staffing shortages, consideration can be given to re-assigning asymptomatic, vaccinated HCPs to another unit in consultation with IPAC.

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