

PEAR VS. THE PANDEMIC

SUPPORTING OUR PHARMACY STAKEHOLDERS DURING THE COVID-19 CRISIS

REVISITING THE IMPORTANCE OF VACCINATION DURING COVID-19

Early in the COVID-19 pandemic, many healthcare providers, including pharmacists and physicians, made the decision to postpone certain high-touch services, such as vaccination, due to physical distancing requirements and lack of personal protective equipment (PPE). Now that several months have passed and the world is learning how to adapt to the ongoing threat of this virus, it is time to address those services that are quickly becoming a high priority.

This document will address the following questions:

- 1 Why should pharmacists be proactive in offering vaccination services to patients during the pandemic?
- 2 In the absence of a COVID-19 vaccine, which vaccines may have the greatest impact on public health and patient outcomes at this time?
- 3 What safety measures should pharmacy teams have in place to offer vaccinations?

We know that contracting a vaccine-preventable disease such as pneumonia or measles can have serious consequences. In addition to individual health outcomes, lack of adequate vaccination can increase the risk of spreading certain communicable diseases (e.g., measles) to others.¹

1 PHARMACISTS TACKLE PANDEMIC-RELATED VACCINE DELAYS

Since mid-March 2020, the availability of certain healthcare services, such as vaccination, has been limited in many parts of the country in response to concerns of community transmission of COVID-19. Routine vaccinations, and recommended vaccines for adults that may have previously been given during this time, have been missed. What is the impact of this?



Impact on Children

For children, the closing of schools may have resulted in missed routine vaccinations that were previously given in that setting (e.g., HPV). As a result, some children may have not completed the required series for certain vaccines. It is unlikely that school vaccination programs will resume in the current environment. Also, routine vaccinations typically given by a family physician or paediatrician may have been delayed or missed (e.g., MMR).

The Risks of Waiting

The question now is: How long can we wait to give these important vaccinations? While vaccines generally have a minimum interval between doses when multiple doses are required, if a series is not completed, a patient will not receive the optimal serological response and, subsequently, suboptimal protection against disease.² Waiting, rather than having immunizations promptly, could increase the risk of further delays caused by disruptions in vaccine supply chain or future closures should COVID-19 transmission escalate in the fall and winter months.

Putting It in Place

Pharmacists and their teams play a central role in community health and have skilfully helped to bridge the care gaps that were created during the pandemic. Providing vaccination services to people in communities across Canada is an essential step that pharmacy teams can take to contribute to public health. How can you make it happen?

- **Identify high-priority vaccinations.** The table below lists vaccines that may have some prominence and take priority at this time. Routine vaccinations, those that prevent diseases that may impact COVID-19 outcomes, and those with evidence of a significant positive impact on individuals and health systems are included. For example, HPV was identified as one of the leading preventable risk factors for cancer in the Canadian Cancer Society's ComPARE study.³
- **Identify high-risk patients.** For vaccines for influenza, pneumococcal disease, and herpes zoster, older adults, particularly those with comorbidities, should be targeted. For other vaccines, determine who is eligible and consider reaching out to patients in your network to remind them of vaccine availability and, where possible, offer to administer the vaccine. Consider using a medication review as an opportunity to talk about vaccination and make specific recommendations for your patients, or generate reports from your pharmacy software to identify patients who may be eligible for certain vaccines based on age or comorbidities.
- **Address vaccine hesitancy, if you encounter it.** In Australia, where influenza season occurs before it does in North America, there was about a 15%–20% increase in demand for flu shots by the public.⁴ In light of the concerns with COVID-19 and the understanding of what a difference a vaccine could make, there may be renewed interest in vaccines, at least for the short term. However, many people are still skeptical when it comes to immunization. As a healthcare provider, it is important that you convey confidence related to the safety and efficacy of vaccines and motivate patients by your own example. When a patient is reluctant to receive a vaccine, listen to them and identify their specific concerns so that you can address these (e.g., safety, effectiveness, need for vaccination). Provide written information or credible online resources (e.g., immunize.ca) to help the patient better understand the risks and benefits.
- **Create structure around vaccination services.** Think about how you will provide this service in the context of the pandemic. For some pharmacies, making appointments for vaccinations allows time to prepare, clean, and sanitize the counselling room or other space that is used for the patient encounter. However, keep in mind that accessibility and flexibility are important factors that influence a person's decision to have a vaccine at their local pharmacy. To encourage high-risk individuals to come to

the pharmacy, you may wish to offer immunization for older adults and most vulnerable patients at specified times of the day.⁵ You can also consider using your pharmacy software or scheduling system to call patients when subsequent doses in a vaccine series are due.

- **Add value to an immunization visit.** For example, if a patient is coming to the pharmacy to

receive the annual influenza vaccine, they may be open to having another recommended vaccine at the same time. Most vaccines can be given at the same time, at different sites, with the exception of combinations of live vaccines. This means fewer visits to the pharmacy for the patient, which may be appreciated during the pandemic.

2 THE INTERSECTION BETWEEN KEY VACCINES AND HEALTH OUTCOMES DURING THE PANDEMIC

When determining how to best support your patients with immunization against vaccine-preventable diseases, consider your scope of practice. Are you authorized to prescribe or administer the vaccine? If not, determine how

you can best collaborate with other practitioners to facilitate timely immunization. For example, a medical directive or direct order from a collaborating physician that enables you to administer certain vaccines may help patients by removing the need to make another healthcare visit.

The table below lists some common vaccines to start with when targeting patients, along with their importance, during the pandemic and beyond.

VACCINE	WHY IT IS IMPORTANT	WHO AND HOW?
Influenza	<ul style="list-style-type: none"> • The flu and COVID-19 may present similarly. • Serious illness as a result of flu may further complicate COVID-19 infection, increasing risks to individuals and adding further strain to the healthcare system. 	<ul style="list-style-type: none"> • Anyone 6 months of age or older with no contraindications. Give priority access to those at high risk of complications or those capable of transmitting the flu to them. • Do not use live intranasal if severe asthma or recent medically attended wheezing, pregnant, healthcare workers, immunocompromising conditions, or with recent ASA use in children. • Consider high-dose inactivated vaccine (Fluzone[®] High-Dose) for older adults (65 years plus), as it offers better protection than standard-dose products.
Pneumococcal	<ul style="list-style-type: none"> • <i>S. pneumoniae</i> is a common cause of superinfection following viral respiratory infection. 	<ul style="list-style-type: none"> • Pneu-C-13 (Prevnar[®] 13): In addition to routine childhood immunizations, one dose to immunocompromised adults at high risk of invasive pneumococcal disease (IPD) at least 1 year after Pneu-P-23

VACCINE	WHY IT IS IMPORTANT	WHO AND HOW?
Pneumococcal (cont.)	<ul style="list-style-type: none"> • Co-infection with <i>S. pneumoniae</i> and COVID-19 can further complicate the clinical picture. 	<ul style="list-style-type: none"> • Pneu-P-23 (Pneumovax® 23): For those 65 years of age and older or at risk of IPD (smoker, alcohol use, long-term care residents, illicit drug use). Booster 5 years later if at high risk of IPD. • If a patient is to receive both vaccines, give Pneu-C-13 first, then Pneu-P-23 at least 8 weeks later.
Herpes zoster (HZ)	<ul style="list-style-type: none"> • About 1 in 3 Canadians develops HZ in their lifetime. • There have been case reports of cutaneous symptoms of herpes zoster associated with infection with COVID-19. • Shingrix, the recombinant vaccine, is preferred: More than 90% effective at preventing shingles and post-herpetic neuralgia that can further complicate the care of a person with COVID-19. Zostavax® II (live vaccine) is an alternative. 	<ul style="list-style-type: none"> • Healthy adults 50 years of age and older. • Can give if patient had shingles in the past, has unknown chickenpox history, or was vaccinated with Zostavax II in the past. Wait 1 year after an episode of herpes zoster or vaccination with Zostavax II before giving Shingrix. • Two doses, 2 to 6 months apart. Second dose can be given at 12 months. • Zostavax II is given as 1 dose.
Human papillomavirus (HPV)	<ul style="list-style-type: none"> • About 75% of sexually active Canadians will be infected with HPV at some time in their lives, and more than 100 types of HPV have been identified. • Two types of vaccines: HPV2 (Cervarix) and HPV9 (Gardasil®9) • HPV9 (protects against 9 types of HPV) is approved for women and men 9 to 45 years old for prevention of four cancers as well as genital warts. HPV2 protects against two types of HPV that cause cervical cancer and is approved for females only. • 3-dose series (2-dose in healthy individuals under 15 years of age); incomplete series does not confer full immune response/effect of the vaccine. 	<ul style="list-style-type: none"> • No need to restart series if not completed by recommended schedule. Use the same product to complete a series unless previous vaccine is unknown or not available. • Females aged 9 years to under 15 years: 2- or 3-dose schedule of HPV2 or HPV9 • Males aged 9 years to under 15 years: 2- or 3-dose schedule of HPV9 • Females aged 15 to 45 years: 3-dose schedule of HPV2 or HPV9 • Males aged 15 to 45 years: 3-dose schedule of HPV9

VACCINE	WHY IT IS IMPORTANT	WHO AND HOW?
Measles, mumps, rubella (MMR)	<ul style="list-style-type: none"> • Important to continue all childhood vaccinations according to provincial programs to prevent outbreaks of serious illness. • Emerging research has suggested that live-attenuated vaccines such as MMR can have nonspecific effects on immune cells and, subsequently, reduce lung inflammation and sepsis that occur with severe COVID-19. 	<ul style="list-style-type: none"> • Where the childhood series was not completed. • Watch for further research to validate a recommendation for adult reimmunization with MMR. • MMR is a live vaccine, so the usual precautions and contraindications (e.g., immunosuppression, pregnancy) apply.

3 ENSURING PHARMACIST/TEAM AND PATIENT SAFETY

When planning for vaccination, ensure that your pharmacy team has a process in place to ensure your safety and that of your patients. This includes:

- Screening for symptoms of COVID-19, ideally prior to the patient coming to the pharmacy. Here is an example of a series of screening questions that you can use: http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_patient_screening_guidance.pdf.
- Cleaning and disinfecting surfaces. Be sure to use a hard-surface disinfectant (see <https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19/list.html> for Health Canada approved agents) to clean and disinfect high-touch surfaces several times a day.
- Use PPE properly, together with hand hygiene. Check with your local health authority/provincial regulatory body for specific recommendations. According to the Canadian Pharmacists Association (CPhA) best practices for the use of PPE for immunizations, point-of-care risk assessment should help to guide the decision on which elements of PPE to use.¹⁵
- Point-of-care risk assessment is an individual assessment of the risk of transmission of microorganism between patient and the healthcare provider. Ask yourself:¹⁶

- Will I be exposed (hands, face, skin, clothing) to splash or spray of blood, excretions, or secretions?
- Will I have contact with the patient's environment?
- Will my hands be exposed to blood, excretions, secretions, or contaminated items?
- Does the patient have known infection or symptoms of infection?
- Suggested PPE includes:¹⁵
 - Face shield or goggles (eye protection) can be used for a session of immunization (i.e., multiple patients).
 - Surgical/procedural mask (replace if damp, soiled, or damaged) can be used for a session.
 - Gloves may not be required; if they are worn, they should be removed and replaced between each patient.

Immunization is an important part of preventative healthcare that may have been postponed or forgotten during the earlier days of the pandemic. Pharmacists have an opportunity to educate, advise, and immunize patients and ultimately bridge these critical gaps in care.

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