Manitoba Health Vaccine-Preventable Respiratory Illnesses

Vaccine Administration Training Module 2025-2026

Please note: The information therein is accurate as of the date posted and the link accessed but can change over time as new information becomes available.

Updated: September 17, 2025

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1. Influenza Disease

- Influenza (the flu) is a respiratory illness caused primarily by influenza A and B viruses. The influenza season usually begins in the fall and lasts into the spring.
- While most people recover within 7 to 10 days, severe illness can occur.
- Certain populations, such as young children, older adults, and those with chronic health conditions, are at higher risk for serious influenza complications such as viral pneumonia, secondary bacterial pneumonia, and worsening of underlying medical conditions.
- Every year, individuals with influenza and influenza-related complications increase the demand on the healthcare system in the fall and winter months.
- Symptoms typically include the sudden appearance of fever, cough, muscle aches and pain. Other common symptoms may include headache, chills, fatigue, loss of appetite and sore throat. Some people (especially children) may experience diarrhea, nausea and vomiting.

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Influenza Disease

- Influenza is primarily transmitted by aerosols and droplets spread through coughing or sneezing, and through direct or indirect contact with respiratory secretions (e.g. sharing food/drinks or touching objects contaminated with the virus and then touching your mouth, eyes or nose).
- The incubation period of seasonal influenza is usually about 2 days but can range from 1 to 4 days.
- Adults may be able to spread influenza to others from 1 day before symptom onset to approximately 5 to 7 days after symptoms start.
- Children and people with weakened immune systems may be infectious longer.

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2. Influenza Vaccines

Program Age Indication/Eligibility	Available Products	Format	Doses per vial/box
6m+	Fluzone	Multi-dose Vial	10 doses per vial
	Fluviral	Multi-dose Vial	10 doses per vial
	Fluzone	Pre-filled Syringe	10 doses per box
	Flucelvax	Pre-filled Syringe	10 doses per box
65yrs+	Fluzone High-Dose	Pre-filled Syringe	5 doses per box
	Fluad	Pre-filled Syringe	10 doses per box

Flucelvax® *Seqirus Ltd.*

Fluviral *ID Biomedical Corporation of Quebec*

Fluzone® *Sanofi Pasteur Limited*

Fluzone® High-Dose *Sanofi Pasteur Limited*

Fluad® *Seqirus Ltd.*

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Influenza Vaccines

Influenza vaccine effectiveness depends on how well the vaccine strains match with circulating influenza viruses, the type and subtype of the circulating virus, as well as the health and age of the individual receiving the vaccine.

Each year the World Health Organization (WHO) monitors the global spread of influenza and identifies which strains will likely cause the most illness during influenza season.

Those strains are then used to create the influenza vaccine for that upcoming influenza season.

All influenza vaccines for the 2025/26 season will be trivalent.

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Influenza Vaccines

- Because the strains can change every year, the vaccine can be different each year.
- For this reason, and because the protection provided by the vaccine decreases over time, it is important to get the influenza vaccine every fall.
- The trivalent influenza vaccines authorized and available in Canada for the 2025-26 season will contain the following strains:

Egg-based vaccines:

- A/Victoria/4897/2022 (H1N1)pdm09-like virus
- A/Croatia/10136RV/2023 (H3N2)-like virus
- B/Austria/1359417/2021 (B/Victoria lineage)-like virus

Cell culture-based vaccines (Flucelvax®):

- A/Wisconsin/67/2022 (H1N1)pdm09-like virus
- A/District of Columbia/27/2023 (H3N2)-like virus
- B/Austria/1359417/2021 (B/Victoria lineage)-like virus

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Enhanced Influenza Vaccines

- As adults get older, their immune systems are less able to mount a response to vaccines.
- Enhanced flu vaccines create a stronger immune response against the flu by adding an adjuvant or by increasing the amount of antigens. This can provide a higher level of protection against severe flu and its complications.
- An enhanced flu vaccine is the recommended vaccine product for Manitobans 65 years and older to receive every year.
- Since enhanced flu vaccines contain either an adjuvant or an increased amount of antigens, it may cause more soreness, redness, or swelling at the injection site.

Beyond protection against influenza and its severe outcomes, recent scientific research suggests that the influenza vaccine can also lower the risk for cardiovascular events especially among those who are at high risk for these events.

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3. Influenza Vaccine Eligibility Criteria and Contraindications

- Eligibility & Recommendations for use
- Schedule
- Contraindications and Precautions

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Influenza Vaccine Eligibility Criteria and Recommendations for Use

Seasonal influenza vaccine is available free-of-charge to ALL Manitobans aged 6 months and older.

An annual flu vaccine is especially important for those at increased risk of serious illness from the flu, their caregivers, and their close contacts. This includes:

People at high risk of influenza-related complications or hospitalization:

- Adults and children with the following chronic health conditions:
  - Cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis, and asthma);
  - Diabetes mellitus and other metabolic diseases;
  - Cancer, immune compromising conditions (due to underlying disease, therapy, or both, such as solid organ transplant or hematopoietic stem cell transplant recipients);
  - Renal disease;
  - Anemia or hemoglobinopathy;
  - Neurologic or neurodevelopmental conditions (includes neuromuscular, neurovascular, neurodegenerative, neurodevelopmental conditions, and seizure disorders [and, for children, includes febrile seizures and isolated developmental delay], but excludes migraines and psychiatric conditions without neurological conditions);
  - Class 3 obesity (defined as BMI of 40 kg/m^2 and over); and
  - Children 6 months to 18 years of age undergoing long-term treatment with acetylsalicylic acid, because of the potential increase of Reye's syndrome associated with influenza.
- All children 6 to 59 months of age;
- All individuals who are pregnant;
- All individuals of any age who are residents of nursing homes and other chronic care facilities;
- Adults 65 years of age and older; and
- Indigenous Peoples.

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Influenza Vaccine Eligibility Criteria and Recommendations for Use

Seasonal influenza vaccine is available free-of-charge to ALL Manitobans aged 6 months and older.

An annual flu vaccine is especially important for those at increased risk of serious illness from the flu, their caregivers, and their close contacts. This includes:

People capable of transmitting influenza to those at high risk:

- Traditional healers, health care and other care providers in facilities and community settings who, through their activities, are capable of transmitting influenza to those at high risk;
- Household contacts, both adults and children, of individuals at high risk, whether or not the individual at high risk has been vaccinated:
  - household contacts of individuals at high risk;
  - household contacts of infants less than 6 months of age, as these infants are at high risk but cannot receive influenza vaccine;
  - members of a household expecting a newborn during the influenza season;
- Those providing regular childcare to children 0 to 59 months of age, whether in or out of the home; and
- Those who provide services within closed or relatively closed settings to people at high risk (e.g., crew on a cruise ship).

Others:

- People who provide essential community services; and
- People whose occupational or recreational activities increase their risk of exposure to avian influenza A(H5N1) viruses.

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Enhanced Flu vaccines: Eligibility Criteria:

Manitobans 65 years of age and older are eligible for an enhanced influenza vaccine free-of-charge:

- Community dwelling individuals aged 65-79 years will receive Fluad®
- The following adults aged 65 years and older will receive Fluzone® HD:
  - residents of long-term care facilities (LTCF), including new and unimmunized residents admitted to an LTCF during flu season;
  - residents of supported and assisted living facilities;
  - clients in interim/transitional care beds;
  - clients receiving homecare services while on a waiting list for admission into a LTCF;
  - Indigenous Manitobans regardless of residence;
  - people living in a remote/isolated community or north of the 53rd parallel of latitude;
  - individuals in provincial correctional facilities, including those who are newly incarcerated or transferred from other federal or out-of-province correctional facilities; and
  - community dwelling individuals aged 80 years and older.

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Influenza Vaccine Schedule

- Adults and children 9 years of age and older should receive 1 dose of influenza vaccine each year.
- Children 6 months to less than 9 years of age who have never received the seasonal influenza vaccine in a previous influenza season should be given 2 doses of influenza vaccine in the current season, with a minimum interval of 4 weeks between doses.
- Children 6 months to less than 9 years of age who have been vaccinated with one or more doses of seasonal influenza vaccine in any previous season should receive 1 dose of influenza vaccine per season thereafter.
- All seasonal influenza vaccines, may be given at the same time as, or at any time before or after administration of other vaccines (either live or inactivated), including COVID-19 and pneumococcal vaccines for those aged 6 months of age and older.

International students and out-of-province visitors continue to be eligible to receive the influenza and the COVID-19 vaccines free-of-charge regardless of third-party insurance and/or Manitoba Health coverage (an administration fee may be charged).

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Influenza Vaccine Contraindications and Precautions

- **Individuals under 6 months of age**

- **Severe allergic reaction (anaphylaxis):** to a previous flu vaccine or to any of the components of an influenza vaccine, except for eggs (*see next slide*); if an individual is found to have an anaphylactic reaction to a component in one influenza vaccine, consideration may be given to offering another influenza vaccine that does not contain the implicated component, in consultation with an allergy specialist. Individuals who have an allergy to substances that are not components of the influenza vaccine are not at increased risk of allergy to influenza vaccine.

- **Guillain-Barré Syndrome (GBS):** People who have developed GBS within 6 weeks of a previous influenza vaccination, unless another cause was found for the GBS. The potential risk for a recurrent episode of GBS associated with influenza vaccination must be balanced against the risk of GBS associated with influenza infection itself and the benefits of influenza vaccination.

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Influenza Vaccine Contraindications and Precautions

- **Acute illness:** Vaccination should usually be postponed in people with serious acute illnesses until their symptoms have improved; vaccination should not be delayed because of minor or moderate acute illness, with or without fever.

- **Oculo-respiratory syndrome (ORS):** was identified during the 2000/01 flu season. Since then, there have been far fewer cases reported per year to the Canadian Adverse Events Following Immunization Surveillance System. ORS is not considered to be an allergic response. Persons who have a recurrence of ORS, including those with a severe presentation (bilateral red eyes, cough, sore throat, hoarseness, facial swelling) upon revaccination do not necessarily experience further episodes with future vaccinations. Individuals who have experienced ORS without lower respiratory tract symptoms may be safely re-immunized with influenza vaccine. Individuals who have experienced ORS with lower respiratory tract symptoms should seek medical advice.

- **Egg allergy:** is not a contraindication for influenza vaccination, as there is a low risk of adverse events (AEs) associated with the trace amounts of ovalbumin allowed in some influenza vaccines manufactured using eggs. Egg-allergic individuals may be vaccinated against influenza using any age-appropriate product, including Live Attenuated Influenza Vaccine (LAIV), without prior influenza vaccine skin test and with the full dose, irrespective of a past severe reaction to egg, and in any setting where vaccines are routinely administered. Cell culture-based and recombinant vaccines are egg-free (ovalbumin-free).

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NACI Seasonal Influenza Guidance in Context of H5N1:

- Multiple outbreaks of avian influenza A(H5N1), specifically clade 2.3.4.4b, have occurred in poultry and wild birds in Canada and the United States (US) since late 2021, with spillover events to other mammals, including dairy cattle and swine in the US.
- In the US, documented transmission from cattle to humans and poultry to humans has been reported.
- Although there is no evidence that seasonal influenza vaccines protect against avian influenza infection, they may reduce the risk of seasonal human and avian influenza A(H5N1) virus coinfection and possible viral reassortment leading to a human-transmissible virus with pandemic potential.
- NACI has expanded List 1 (groups for whom influenza vaccination is particularly important) to include people whose occupational or recreational activities increase their risk of exposure to avian influenza A(H5N1) viruses.
- In July 2025, MHSLTC implemented a Human Vaccination against Avian Influenza (HVAI) Immunization Program for High-Risk Occupational Groups (see Avian Influenza | Health | Province of Manitoba for more information).

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Influenza Vaccine Resources

Fact Sheets: Province of Manitoba | Vaccine-Preventable Respiratory Illnesses

- **Seasonal Influenza Vaccine** (available electronically in the following languages: Tagalog, Punjabi, German, Hindi, Spanish, Ukrainian and Indigenous Languages: Cree, Dakota, Dene, Inuktitut, Michif, Ojibway and Oji-Cree)
- **Enhanced Seasonal Influenza (Flu) Vaccine for People Aged 65 and Older** (available electronically in English and French)

Vaccine Product Monographs: Province of Manitoba | Vaccine-Preventable Respiratory Illnesses

Manitoba Health's Seasonal Influenza Website: Seasonal Flu | Health | Province of Manitoba (gov.mb.ca)

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4. COVID-19 Disease

- Severe Acute Respiratory Syndrome Coronavirus 2 (SARs-CoV-2) is a virus that causes the disease known as COVID-19.
- Viruses like SARS-CoV-2 evolve through genetic mutation, and new variant forms of the virus continuously occur. Surveillance for new variants and their impact continues globally as part of the ongoing COVID-19 response. For more information including current VOCs in Canada refer to SARS-CoV-2 variants: National definitions, designations and public health actions - Canada.ca.
- Symptomatic cases may experience one or more of the following common symptoms: fever or chills, cough, shortness of breath, sore throat, congestion or runny nose, fatigue, myalgia, headache, loss of taste or smell, nausea, vomiting or diarrhea. Less common clinical manifestations include but are not limited to are dermatological changes (i.e., rash) and ocular symptoms (i.e., conjunctivitis).

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COVID-19 Disease

- The clinical presentation of SARS-Cov-2 ranges from asymptomatic to severe, and symptoms may change over the course of illness. The clinical features can also vary by age, vaccination status and variants of concern. Severe disease occurs more often in older age and in those with underlying medical conditions, and the risk increases with the number of underlying medical conditions.

- Multisystem inflammatory syndrome is a rare but severe post-infection complication of SARS-CoV-2 that can occur in children and adults. It is a hyperinflammatory condition that can lead to multiorgan failure. Refer to the following link for more information on Multisystem inflammatory syndrome in children in Canada.

- Post COVID-19 condition (i.e., long COVID) refers to a variety of physical and/or psychological symptoms that persist more than 12 weeks after the initial infection. Symptoms can vary in intensity and resolve or become exacerbated. More information and resources are available at Long COVID - Shared Health (sharedhealthmb.ca)

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COVID-19 Disease

- COVID-19's main mode of transmission is from person to person through respiratory droplets and aerosols. These infected droplets or aerosols may come into direct contact with the mucous membranes of another person, or they may be inhaled into their respiratory system.
- The virus is most frequently transmitted when people are in close contact with others that are infected with the virus.
- The incubation period can be anywhere from 1 to 14 days after exposure. The median is 5 to 6 days between exposure and symptom onset.
- The period of communicability begins 2 to 3 days prior to the development of overt symptoms. Transmission usually peaks around symptom onset and decreases gradually from day three. The length of time that a person is infectious to others can vary depending on severity of symptoms and type of variant.

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COVID-19 Vaccines

Updated 2025-26 COVID-19 vaccines will protect against SARS-CoV-2 Omicron LP.8.1 variant as per PHAC's recommendation.

COVID-19 mRNA Vaccines for the 2025-26 respiratory illness immunization program include:

- Moderna/Spikevax™ – for individuals 6 months of age and older
- Pfizer/COMIRNATY™ - for individuals 5 years of age and older

Novavax will not be available for the upcoming season; only mRNA products will be available as part of the publicly funded program.

Program Age Indication	Available Products	Format	Doses per vial/box	2-8C stability
12yrs+	Moderna Spikevax	Multi-dose Vial	5 doses per vial	50 days in fridge once removed from -20C
	Moderna Spikevax	Pre-Filled Syringe	10 doses per box	50 days in fridge once removed from -20C
	Pfizer Comirnaty	Multi-dose Vial	6 doses per vial	70 days in fridge once removed from -80C
	Pfizer Comirnaty	Pre-Filled Syringe	10 doses per box	8 months in fridge once removed from -20C
5 to <12yrs	Pfizer Comirnaty	Single Dose Vial	1 dose per vial	70 days in fridge once removed from -80C
6m to <12yrs	Moderna Spikevax	Multi-dose Vial	10 doses per vial	50 days in fridge once removed from -20C

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6. COVID-19 Vaccine Eligibility Criteria and Contraindications

- Eligibility and Recommendations for use
- Schedule
- Contraindications and Precautions

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COVID-19 Vaccine Eligibility Criteria

Immunization with the most updated COVID-19 vaccine is strongly recommended for previously vaccinated and unvaccinated individuals at increased risk of COVID-19 infection or severe disease:

- All adults 65 years of age or older
- Those 6 months of age and older who are:
  - Residents of long-term care homes and other congregate living settings
  - Individuals with underlying medical conditions that place them at higher risk of severe COVID-19, including children with complex health needs
  - Individuals who are pregnant
  - Individuals in or from First Nations, Métis and Inuit communities
  - Members of racialized and other equity-deserving communities
  - People who provide essential community services

- All other previously vaccinated and unvaccinated individuals (6 months of age and older) who are not at increased risk for SARS-CoV-2 infection or severe COVID-19 disease (i.e., not on the list above) may receive the most recently updated vaccine.

International students and out-of-province visitors continue to be eligible to receive the influenza and the COVID-19 vaccines free-of-charge regardless of third-party insurance and/or Manitoba Health coverage (an administration fee may be charged).

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COVID-19 Vaccine Schedule

Schedule for previously vaccinated individuals:

- For those previously vaccinated against COVID-19, all individuals aged 6 months and older are eligible to receive one dose of the updated formulation of COVID-19 vaccine.
- You may receive a dose of the updated formulation if it has been at least 3 months from any previous COVID-19 vaccine formulation.
- COVID-19 vaccines may be given concurrently (i.e., same day), or at any time before or after non-COVID-19 vaccines (including live and non-live vaccines).

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COVID-19 Vaccine Schedule

Schedule for unvaccinated individuals:

Age Group	Number of doses	Recommended Interval
Not immunocompromised		
6 months to less than 5 years of age	2	8 weeks apart
5 to 11 years of age	1	N/A
12 years of age and over	1	N/A
***Moderately to severely immunocompromised**		
6 months of age and older	3	4-8 weeks apart

*For the purposes of COVID-19 vaccine recommendations, the following individuals are considered moderately to severely immunocompromised due to a medical condition and/or treatment:

- are receiving active chemotherapy (or immunotherapy) for cancer;
- have received a solid organ transplant and are currently receiving chemotherapy or other immunosuppressive therapy;
- were born with moderate or severe dysfunction of their immune system;
- are living with untreated or advanced HIV-AIDS; or
- are taking certain medications that severely affect the immune system.
- The following people should talk to their doctor to see whether they are considered to be immunocompromised:
    - receiving hemodialysis or peritoneal dialysis;
    - are on the list to receive a solid organ transplant; or
    - have a ventricular assist device (VAD).

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COVID-19 Vaccine Schedule

Advice for immunization after a COVID-19 infection:

- For individuals who have recently had a positive COVID-19 test result, the risk of getting COVID-19 is low in the months after infection. It is recommended to wait 3 months between infection and immunization with the COVID-19 vaccine. The immune response is better when there is more time between infection and vaccination.
- For individuals who have or had a mild illness and did not get a COVID-19 test, it is recommended to get immunized rather than waiting 3 months to receive the vaccine. Anyone with a high fever should postpone getting the vaccine until recovered.
- Recommendations may be different for those who are moderately to severely immunocompromised or not previously vaccinated and should speak to their health care provider to get the best advice on when to get the vaccine after a COVID-19 infection.

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COVID-19 Vaccine Contraindications and Precautions

- **Individuals under 6 months of age**
- **Acute Illness:** Vaccination should usually be postponed in people with serious acute illnesses until their symptoms have improved; vaccination should not be delayed because of minor or moderate acute illness, with or without fever.
- **Severe Allergic Reaction to a COVID Vaccine:** Those with a previous history of a severe immediate reaction to a COVID-19 vaccine (e.g., anaphylaxis) or to any component of the vaccine (ex: polyethylene glycol [PEG], Tromethamine [trometamol or Tris]), require consultation with an allergist or other appropriate physician to determine if future doses of the specific vaccine can be received.
    - If re-vaccinated, individuals should be observed for an extended period of at least 30 minutes after re-vaccination.

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COVID-19 Vaccine Contraindications and Precautions

- **Myocarditis/ Pericarditis** (inflammation of the heart muscle/lining around the heart): is a very rare reaction that may occur after vaccination. It can cause shortness of breath, chest pain or the feeling of a fast or abnormal heartbeat. Most people who experienced these symptoms had them within 7 days after receiving the vaccine, responded well to treatment and recovered quickly. COVID-19 is much more likely to cause myocarditis/pericarditis than the vaccine. Vaccine related myocarditis/pericarditis is also a much milder condition than infection related myocarditis/pericarditis. Individuals who have had confirmed myocarditis (with or without pericarditis) should discuss the risks and benefits with their health-care provider prior to immunization. Current data do not show a product-specific difference in the risks of myocarditis and/or pericarditis after a dose of an updated formulation of mRNA COVID-19 vaccine.
- **Multisystem inflammatory syndrome in children or adults (MIS-C or MIS-A):** Children or adults with a previous history of MIS-C or MIS-A should speak with the health-care provider prior to immunization. Vaccination or re-vaccination should be postponed until clinical recovery has been achieved or until it has been ≥ 90 days since diagnosis, whichever is longer.

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COVID-19 Vaccine Resources

Fact Sheet: Province of Manitoba | Vaccine-Preventable Respiratory Illnesses

- **COVID-19 Vaccine** (available electronically in the following languages: Tagalog, Punjabi, German, Hindi, Spanish, Ukrainian and Indigenous Languages: Cree, Dakota, Dene, Inuktitut, Michif, Ojibway and Oji-Cree)
  - *there are printed COVID-19 factsheets still available to order (July 2024 is the most recent version)*

Vaccine Product Monographs: Province of Manitoba | Vaccine-Preventable Respiratory Illnesses

Manitoba Health's COVID-19 Website: Province of Manitoba | COVID-19

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7. Pneumococcal Disease

- Pneumococcal disease is an illness that is caused by the pneumococcal bacteria *S. pneumoniae*.
- Anyone can get pneumococcal disease, but it is most common in children under age 5 (especially under age 2), adults over age 65 and in people living with certain medical conditions or other risk factors.
- Many people who have pneumococcal bacteria in their nose and throat will not show any symptoms. In some cases, pneumococcal bacteria can cause local (contained) infections, such as:
  - ear infections, which can lead to sore ear(s) and fever.
  - sinus infections, which can lead to cough, runny or stuffy nose, headache, sore throat, and facial pain or pressure.
  - lung infections, which can lead to coughing up thick mucus and difficulty breathing, chest pain and fever/chills.

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Pneumococcal Disease

- It usually takes 1 to 3 days for symptoms to appear after the pneumococcal bacteria enter someone's body.
- In rarer cases, the bacteria can invade other parts of the body. When this happens, IPD can develop. IPD is a type of serious infection that includes septicemia (an infection of the blood) and meningitis (an infection of the lining that covers the brain). It can lead to permanent brain damage, hearing loss or death.
- The symptoms depend upon what part(s) of the body is (are) affected. Symptoms may include fever, stiff neck, headache, photophobia (eyes being more sensitive to light), vomiting, fussiness (crying), loss of appetite, coughing and confusion. In babies, meningitis may cause poor eating and drinking, low alertness, and vomiting.
- Each year, approximately 3,000 cases of IPD are reported in Canada.

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Pneumococcal Disease

- In Canada, IPD is more common in the winter and spring.
- Pneumococcal infections may occur following a viral infection like influenza (flu).
- Pneumococcal bacteria are very common. These bacteria can spread very easily through infected mucus or saliva. A person is capable of transmitting disease to others if the bacteria are present in secretions from the nose and mouth. You may come in contact with infected mucus or saliva through:
  - close contact with an infected person
  - coughs and sneezes from an infected person
  - touching objects that were recently exposed to an infected person's mucus or saliva then rubbing your eyes or nose. These objects could include shared utensils, cups, tissues and toys.
- Transmission stops when the bacteria disappear from the nose and mouth. This usually happens within 24 hours of starting an appropriate antibiotic treatment.

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8. Pneumococcal Vaccine

- The Pneu-C-20 (Prevnar®20) *Pfizer* vaccine protects against 20 different serotypes of Streptococcus pneumoniae (S. pneumoniae) that cause the most severe infections.
- Conjugate vaccines ("-C-" vaccines) are expected to offer more durable protection compared to polysaccharide vaccines ("-P-" vaccines). While the two new Pneu-C-15 and -20 conjugate vaccines have been authorized based on immunogenicity data, there is an expectation that they will provide protection on par with Pneu-C-13 for the shared serotypes and will offer additional protection against the non-shared serotypes included in the vaccines.
- Pneumococcal vaccines can be co-administered with other routine and age-appropriate vaccines, such as the influenza and COVID-19 vaccines.

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9. Pneumococcal Vaccine Eligibility Criteria and Contraindications

- Eligibility Criteria
- Contraindications and Precautions

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Pneu-C-20 Vaccine Eligibility Criteria

The Pneu-C-20 vaccine is offered free of charge as part of Manitoba's routine immunization schedule to people 65 years of age and older as well as children and adults at higher risk of pneumococcal disease due to a medical condition or other risk factors, based on Manitoba's immunization program eligibility criteria: Vaccine Eligibility | Health | Province of Manitoba (gov.mb.ca)

- All individuals ≥ 65 years of age are eligible to receive 1 dose if they have not yet received Pneu-P-23 since turning 65 years old.
  - *There is currently no recommendation to administer a dose of Pneu-C-20 if someone has already received a dose of Pneu-C-20 before turning 65.*
- If they had received a dose of Pneu-P-23 before turning 65, Pneu-C-20 can be administered 5 years after that dose.
- Adults 18 years of age and older at *high risk of IPD are eligible to receive 1 dose (at least 5 years after any previous dose of Pneu-P-23 or at least 8 weeks after any previous dose of Pneu-C-13 vaccine, whichever is longer).

***High-risk criteria for invasive pneumococcal disease:**

- Chronic cerebral spinal fluid (CSF) leak
- Chronic neurologic condition that may impair clearance of oral secretions
- Cochlear implants (including those who are to receive implants)
- Chronic cardiac or pulmonary disease
- Diabetes mellitus
- Asplenia (functional or anatomic)
- Hemoglobinopathies
- HIV infection
- Congenital immunodeficiencies involving any part of the immune system, including B-lymphocyte (humoral) immunity, T-lymphocyte (cell) mediated immunity, complement system (properdin, or factor D deficiencies), or phagocytic functions
- Immunosuppressive therapy including use of long-term corticosteroids, postorgan transplant therapy, and certain anti-rheumatic drugs
- Chronic kidney disease, including nephrotic syndrome
- Chronic liver disease (including hepatic cirrhosis due to any cause)
- Solid organ or islet transplant (candidate or recipient)
- Residents of a personal care home or a long-term care facility OR in residential care due to complex medical needs
- Persons with alcoholism
- Persons who are homeless
- Persons who use illicit drugs
- Hematopoietic stem cell transplant recipient (as per CancerCare Manitoba Blood and Marrow Transplant (BMT) Immunization Schedule

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Pneu-C-20 Vaccine Contraindications and Precautions

- Known severe hypersensitivity to any component of the vaccine.
- Anaphylactic or other allergic reaction to a previous dose of Pneu-C-20 vaccine.
- Administration of pneumococcal vaccine should be postponed in persons suffering from severe acute illness. Immunization should not be delayed because of minor acute illness, with or without fever.

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Pneu-C-20 Vaccine Resources

FAQ for Healthcare Providers: FAQ for Health Care Providers on Pneumococcal Vaccines

Fact Sheet: Pneumococcal Conjugate Pneu-C-20 Vaccine

Vaccine Product Monograph: PREVNAR 20™ Pneumococcal 20-valent Conjugate Vaccine

Manitoba Health's Website on Invasive Pneumococcal Disease: Invasive Pneumococcal Disease | Health | Province of Manitoba

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10.Vaccine Clinic Resources For Immunizers

Combined Flu/COVID-19/Pneumo material:

- COVID-19/Influenza/ Pneumococcal Vaccine Quick Reference Guide
- COVID-19/ Flu/ Pneumo Vaccine Comparison Chart

Product Monographs:

- Province of Manitoba | Vaccine-Preventable Respiratory Illnesses

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11. RSV Disease

- Respiratory syncytial (sin-SISH-uhl) virus, or RSV, is a common respiratory virus that follows an annual seasonal pattern, with increased activity in the fall and winter months and continues to early spring.
- RSV infects the nose, throat and lungs. Symptoms often begin 2 to 8 days after exposure to RSV.
- Most people infected with RSV will experience cold-like symptoms such as runny nose, coughing, sneezing, wheezing, fever and a decrease in appetite and energy. Infants may be more irritable and have difficulty breathing, poor appetite and decreased activity.
- This virus can spread from person to person through coughing, sneezing and talking. RSV may also spread by touching something that has the virus on it, then touching your mouth, nose or eyes with unwashed hands.

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11. RSV Disease

- People infected with RSV are usually contagious for 3 to 8 days. Some people with compromised immune systems can continue to spread the virus for as long as 4 weeks.
- Although RSV usually causes mild illness, some people infected with RSV need hospitalization.
- RSV outcomes are more severe in high-risk children (premature, chronic lung disease, congenital heart disease, immunocompromised) and may require hospitalization.
- In Canada, RSV is the #1 cause of hospital admissions among children in their first year of life.
- Older adults who live in personal care homes and those with certain medical conditions are also at high risk.

Manitoba

12. RSV Vaccines

RSV vaccines for older adults:

- **AREXVY** (RSVPreF3) RSV subunit adjuvanted vaccine, *GlaxoSmithKline Inc*
- **ABRYSVO™** (RSVpreF) RSV subunit vaccine, *Pfizer*

- At this time, only one dose of RSV vaccine is recommended.
  - *The need for subsequent vaccine doses and optimal strategy for boosting these vaccine responses are not yet clear.*
- Respiratory Syncytial Virus (RSV) Vaccine Fact Sheet
- RSV Vaccine Quick Reference Guide for Immunizers

Manitoba

13. RSV Vaccine Eligibility Criteria and Contraindications

- Eligibility Criteria
- Schedule
- Concurrent administration with other vaccines
- Contraindications and Precautions

Manitoba

RSV Vaccine Eligibility Criteria

Individuals aged 60 years of age and older are eligible for one dose of the RSV vaccine if they:

- Reside in a personal care home (PCH), or
- Have been admitted to a PCH for respite care, or
- Have been admitted to a transitional care unit AND have been paneled for PCH and are awaiting placement, or
- Have been admitted to a chronic care unit AND have been paneled for PCH.

Manitoba

RSV Vaccine Schedule

- RSV vaccines work best when given just before or during the RSV season. People at highest risk of severe RSV disease should time their vaccination to optimize protection during the RSV season.

Concurrent administration with other vaccines

- Seasonal vaccines, such as influenza and COVID-19 vaccines, can be given at the same time as the RSV vaccine.
- Some studies suggest that RSV and influenza vaccines may not produce as strong of an immune response if they are given on the same day, but the clinical significance of this is unknown.
- Some studies have also shown that getting the influenza and RSV vaccine on the same day may cause an increase of common side-effects such as fever and soreness at the injection site.
- Therefore, it is recommended that personal care homes plan to administer the RSV vaccine minimum of two (2) weeks before the administration of influenza vaccines. *However, the RSV vaccine may be administered at the same time as other vaccines on an individual resident basis.*

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RSV Vaccine Contraindications and Precautions

- **Acute illness:** Vaccination should usually be postponed in people with serious acute illnesses until their symptoms have improved; vaccination should not be delayed because of minor or moderate acute illness, with or without fever.
- **Severe allergic reaction (anaphylaxis):** contraindicated in individuals with a known hypersensitivity or history of a severe allergic reaction (e.g., anaphylaxis) to any component of the products.
- **Guillain-Barré Syndrome (GBS):** There are some indications that RSV vaccines may be associated with an increased risk of Guillain-Barré syndrome (a condition that can cause muscle weakness, numbness and paralysis) and atrial fibrillation (irregular and fast heartbeat that can lead to blood clots in the heart and brain).

Manitoba

14. Paediatric Respiratory Syncytial Virus(RSV) Immunoprophylaxis Program- *new in 2025*

Beginning October 1, 2025, all infants born October 1, 2025, to March 31, 2026, will be eligible for one dose of nirsevimab. This program expansion is in addition to the existing Manitoba High-Risk RSV Immunoprophylaxis Program. For more information on eligibility, please visit: Vaccine Eligibility | Health | Province of Manitoba

RSV monoclonal antibodies- nirsevimab (Beyfortus™):

- Is not a vaccine. It does not rely on the infant's immune response.
- Binds to the RSV fusion (F) protein, blocking the virus from entering respiratory cells.
- Provides immediate passive immunity with ready-made antibodies. A single dose protects infants from RSV for 5–6 months.
- Will be provided primarily in hospitals.

If an infant does not receive a dose prior to discharge from hospital, parents can be directed to the following locations where providers can administer a dose:

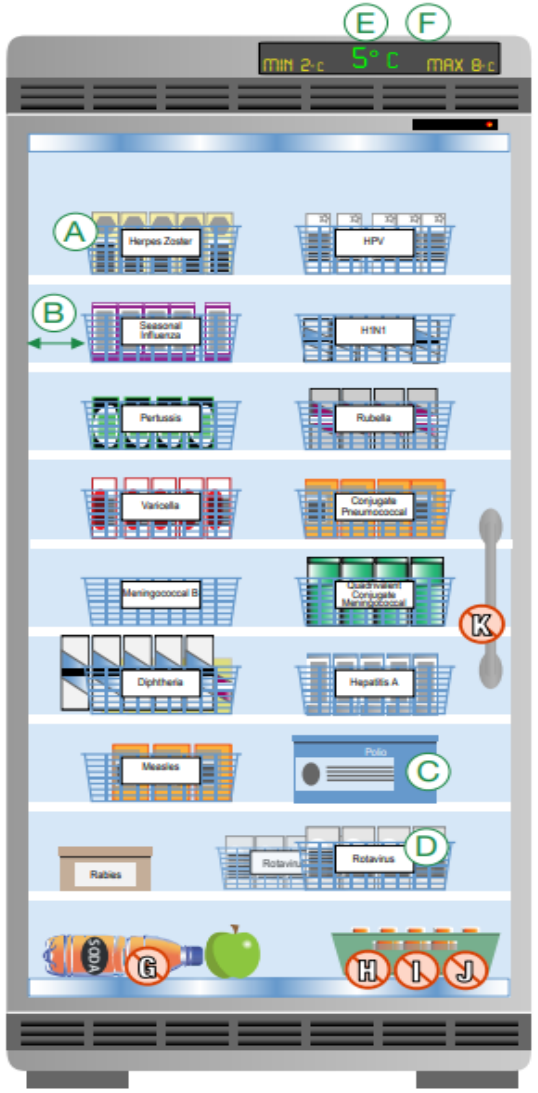
- Local public health office or post-partum home visit by the public health nurse
- A nursing station or health centre
- Designated Walk-In Connected Care Clinics at Access Centres in Winnipeg. Call the clinic first to confirm availability: Walk-In Connected Care | Winnipeg Regional Health Authority.

Manitoba

15. Storage and Handling of Vaccines

- Cold Chain and Storage
- Pre-loading Vaccine Syringes

FIGURE 1: ORGANIZING THE PURPOSE-BUILT REFRIGERATOR



DO:

- (A) Place vaccine in breathable plastic mesh baskets and clearly label baskets by type of vaccine
- (B) Keep baskets 5 – 8 cm from walls and other baske
- (C) Keep vaccine in their original boxes until you are ready to use them
- (D) Keep vaccines with shorter expiration dates to the front of the shelf/basket
- (E) Keep temperature between 2 – 8°C (aim for 5°C)
- (F) Check and log temperature twice a day

DO NOT:

- (G) Store food or drink in refrigerator – only vaccine in vaccine storage unit
- (H) Place vaccine in solid plastic trays or containers
- (I) Store vials out of their original individual packagir
- (J) Place vaccine in drawers or on floor of refrigerato
- (K) Open door more than necessary

Source: National Vaccine and Storage Guidelines: vaccine-storage-entreposage-vaccins-eng.pdf (canada.ca)

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Cold Chain and Storage

- The Cold Chain refers to the process used to maintain optimal conditions during the transport, storage, and handling of vaccines, starting at the manufacturer and ending with the administration of the vaccine to the client.
- Vaccines must be stored in a refrigerator according to manufacturer's requirements prior to use.
- Vaccines should be organized in the refrigerator by grouping the same vaccine products together in a labeled container.
- Space should be left between the vaccine packages in the refrigerator to allow air to circulate.
- Please refer to the Cold Chain Protocol- Vaccines and Biologics: https://www.gov.mb.ca/health/publichealth/cdc/protocol/ccp.pdf
- Storage and handling of immunizing agents: Canadian Immunization Guide - Canada.ca

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Cold Chain and Storage- Immunization Clinic Stations

- Protocols for monitoring and recording the vaccine storage temperature at designated frequencies during the operation of a clinic and after hours must be adhered to.
- Immunizers are responsible to ensure appropriate temperature storage of vaccines is maintained at their immunization station according to manufacturer's requirements.
    - Insulated containers (coolers) with refrigerated gel packs are used to temporarily store a small quantity of product at each individual immunization station.
    - Insulating material should be used as a barrier to prevent direct contact between the vaccine and the refrigerated packs.
    - Refrigerated gel packs should be replenished as needed throughout the clinic to ensure cold chain of vaccines is maintained.
- Vaccines should be kept in their original packaging until the immunizer is ready to prepare and administer the vaccine to protect against breakage, exposure to light, and prevent direct contact with refrigerated gel packs.

Manitoba

Pre-loading Vaccine Syringes

Pre-loading (or pre-drawing) refers to the practice of drawing up multiple doses of vaccine(s) into syringes in advance of administration for multiple clients.

As outlined in the Canadian Immunization Guide: *"Pre-loading syringes with vaccine is strongly discouraged because of the uncertainty of vaccine stability in syringes, risk of contamination, increased potential for vaccine administration errors and vaccine wastage".*

- Vaccines are only to be prepared and drawn up by the immunizer who will be administering the vaccine to the client.

For best practice recommendations regarding pre-loading vaccines during immunization clinics, review the following provincial guideline: Immunization Clinics: Pre-loading Vaccines

Manitoba

16. Pre-Vaccination

- Pre-Vaccination Counselling
- Informed Consent

Manitoba

Pre-Vaccination Counselling

Prior to vaccination, the immunizer should:

- ✓ Review immunization history.
- ✓ Ensure proper client identification; two client identifiers are required prior to any intervention (e.g., Name, Birthdate, PHIN, Address).
- ✓ Assess the vaccine recipient's current state of health.
- ✓ Assess contraindications and precautions to receiving the vaccine(s) including any history of potential immediate or anaphylactic hypersensitivity to a previous dose of the vaccine(s) or to any of the vaccine components.
- ✓ Provide information regarding the benefits and risks of the vaccine(s).
- ✓ Ensure informed consent obtained from vaccine recipient or parent/legal decision maker.

Manitoba

Informed Consent

- A health care professional must obtain consent from a client, or from a person authorized to give consent on behalf of a client, before a vaccine is administered.
- Consent must be voluntary, obtained by the immunization provider, and must be documented appropriately. When consent is not received or immunization is declined, this should be indicated on the consent form/charting system.
- Informed consent requires that the client must be provided with the information necessary to make a decision to have or to refuse a treatment such as:
  - expected benefits and risks of the vaccine or biologic;
  - risks of the disease in the absence of vaccination;
  - any other information (e.g., common side effects, contraindications, route of administration) that a reasonable person in the same circumstances would require in order to make a decision about the immunization.

Manitoba

Informed Consent

Mature Minors

It is preferred that a parent or legal guardian provides consent for a child. However, consent for those less than 18 years of age can be considered outside of parental consent (Mature Minor) as per 4(2) of the Health Care Directives Act.

- Clients 16 years to less than 18 years of age:
  - If client presents without a parent or legal decision maker (or without a consent form signed by their parent or legal decision maker) – provide immunization if you believe the minor is able to understand the nature and effects of the information and/or is able to appreciate the consequences of a decision.
- Clients under 16 years of age:
  - If client presents without a parent or legal decision maker (or without a consent form signed by their parent or legal decision maker) – immunizer should first attempt to obtain consent from parent/legal decision maker.
  - If informed consent can not be obtained from a parent or legal decision maker – the immunizer will assess the minor's ability to provide informed consent as a "mature minor" (has the capacity to understand the risks/benefits/outcomes of the vaccine and has been assessed to have the ability to consent on their own).

Provincial Informed Consent Guidelines for Immunization can be located at:
www.manitoba.ca/health/publichealth/cdc/protocol/consentguidelines.pdf

Manitoba

17. Vaccine Administration

- Infection Prevention and Control (IP&C)
- Rights of Administration
- Pain Management and Comfort Measures
- Landmarking and positioning
  - Landmarking for Deltoid Muscle
  - Positioning Young Children for Deltoid injection
  - Positioning Older Children and Adults for Deltoid Injection
  - Landmarking the Deltoid Site
  - Positioning Infants and Young Children for Vastus Lateralis Injection
  - Landmarking for Vastus Lateralis (Anterolateral Thigh)
- Assessing the Injection Site
- Selecting Needle Size
- Intramuscular Injection Technique

Manitoba

Infection Prevention and Control (IP&C)

- Staff providing immunizations in any setting should follow routine practices at all times and perform a Point of Care Risk Assessment (PCRA) to determine what Personal Protective Equipment (PPE) is required: sharedhealthmb.ca/files/routine-practices-protocol.pdf
- PPE must be available for all staff (medical grade masks, eye protection, N95 respirators) if required.
- Please visit manitoba.ca/health/publichealth/cdc/ipc.html to review the *Immunization Program/Clinic: Infection Prevention and Control (IP&C) Procedures/Processes* and for additional guidelines and forms.
- Additional Shared Health IP&C resources are available here: healthproviders.sharedhealthmb.ca/services/ipc/

Manitoba

Rights of Administration

As part of preparation and administration of the vaccine, the health care provider is responsible for checking the following rights:

- **Right client -** obtain 2 client identifiers to ensure the vaccine is being given to the correct client (e.g., name, Personal Health Information Number (PHIN), date of birth (DOB), and/or contact information such as address and/or phone number)
- **Right product -** (e.g., vaccine, diluent)
- **Right dose -** review client's age and vaccine information for correct dosage (i.e., 0.5 mL or 0.25 mL)
- **Right time/schedule -** meets the minimum or recommended interval for the client to receive the vaccine in order for it to be an effective and valid dose
- **Right route -** optimum route this vaccine should be given (e.g., intramuscular)
- **Right injection site -** optimum location chosen for administration based on age or vaccine type (i.e., deltoid vs vastus lateralis)
- **Right reason -** (e.g., meets vaccine eligibility criteria)
- **Right documentation-** ensure all the key documentation requirements have been completed

Manitoba

Pain Management and Comfort Measures

Immunization Counselling

During each interaction, immunizers should encourage questions, address concerns/misinformation and provide valid/evidence-based information. Building trust is especially important with clients or parents who are hesitant to receive vaccines themselves or for their child.

The following link provides resources for immunization counselling and vaccine hesitancy:

Counselling the Public | immunizecanada

Pain Management and Comfort Measures

- **Encourage Comfort and Relaxation**
  - Encourage slow deep breathing.
  - Some clients may benefit from being vaccinated in a private room and with a support person attending the appointment with them.
  - If client reports a history of fainting with needles or feeling dizzy, ensure they are lying down when receiving the injection and remain lying down for a few minutes post immunization.

- **Distraction**
  - Redirect the client's attention away from the needle. Talk with them or ask them questions about a subject other than immunization, encourage them to read, play a video game, watch a video on their phone, play music, practice slow deep breathing or rub their arm.

Manitoba

Pain Management and Comfort Measures

Topical Anesthetics

Clients may attend an immunization clinic with a numbing cream, patch, spray or other agent that has been applied prior to arriving at the clinic. These agents numb the surface of the skin so the individual will feel little to no pain with the injection. Whenever a topical anesthetic is applied, it must be removed before proceeding with the immunization.

Muscle Tension Technique

For children or adults who tend to get dizzy or faint during immunizations, the muscle tension technique can also be effective:

Step 1: Tense or squeeze the muscles in legs or stomach (not the arms where the vaccine will be given)

Step 2: Squeeze for 10-15 seconds until face feels flushed or warm

Step 3: Release tension for 20-30 seconds

Step 4: Repeat steps until immunization is completed or until the feeling of dizziness/faintness passes.

For more information and resources on immunization pain management and comfort measures:

- Immunize.ca- *Pain management*
- C.A.R.D (Comfort, Ask, Relax, Distract) – *Strategies and resources to help cope before and during vaccinations*

Manitoba

Pain Management and Comfort Measures

Simultaneous vs Sequential Vaccine Administration

- Simultaneous vaccine administration is the practice of two immunizers administering a separate vaccine at the same time to one client.
- Sequential vaccine administration is the general practice in which one immunizer provides each vaccine, one after the other to one client.

Review of the literature states there is insufficient evidence for or against the practice of simultaneous vaccine administration as a method for pain management vs the general practice of sequential vaccine administration.

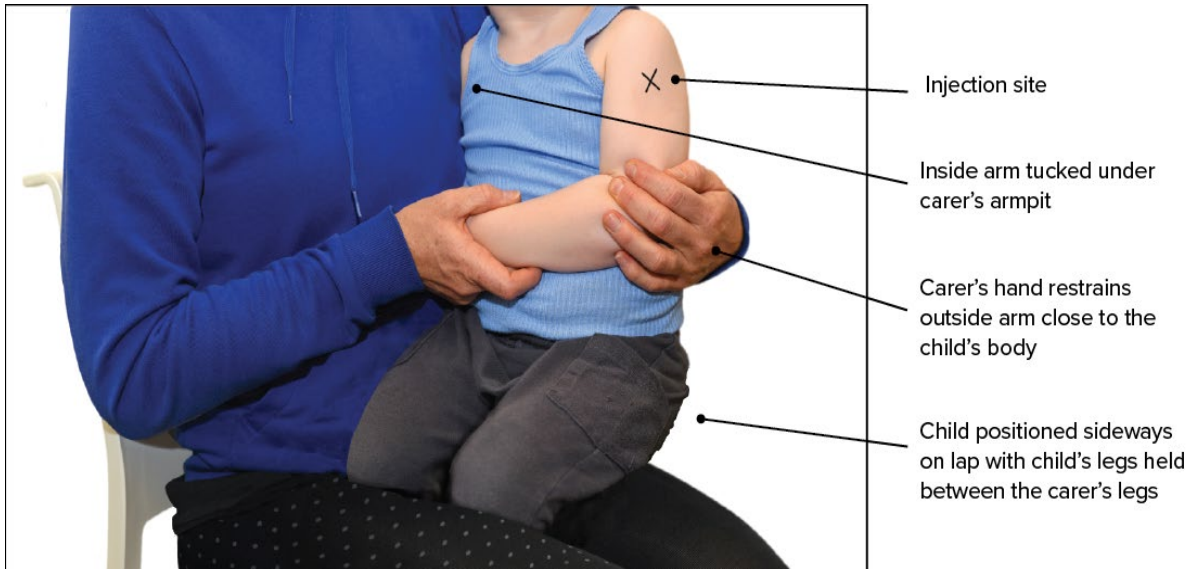
For children 1-10 years of age, research has found no benefit, but there is weak evidence that simultaneous vaccine administration may be beneficial for infants under 12 months of age.

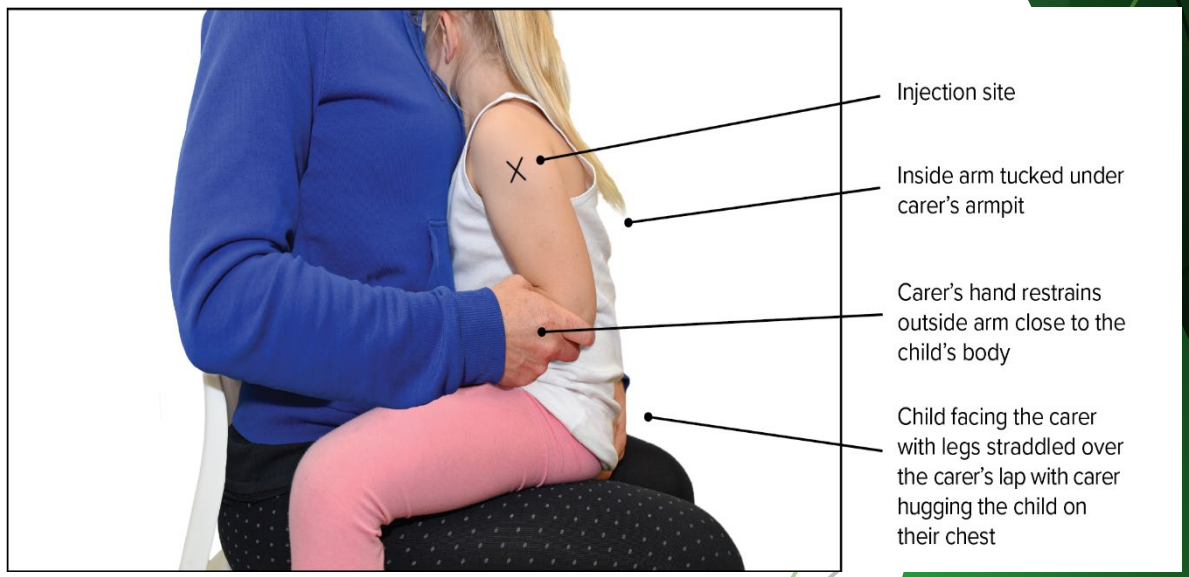
Overall, cost effectiveness of two immunizers, safety risks, and the possibility of vaccine administration errors, outweigh any potential benefits of utilizing this practice as a pain management strategy for children who require multiple vaccinations during a clinic.

Manitoba

Positioning Young Children for Deltoid injection

- Instruct younger children to sit sideways or in a straddle position on the lap of the parent/caregiver.
- The arm being used for the immunization should be held close to the child's body by the parent/caregiver, while the other arm is tucked behind the parent's/caregiver's back.
- Ask the parent/caregiver to firmly hold the child's legs and feet between the parent/caregiver's thighs, and if in the straddle position, control the child's legs with the parent/caregiver's forearms, if necessary.
- The deltoid site should be clearly visible, and the child is firmly stabilized by the parent/caregiver to prevent movement during the immunization.





Source: Australian Immunization Handbook

Manitoba

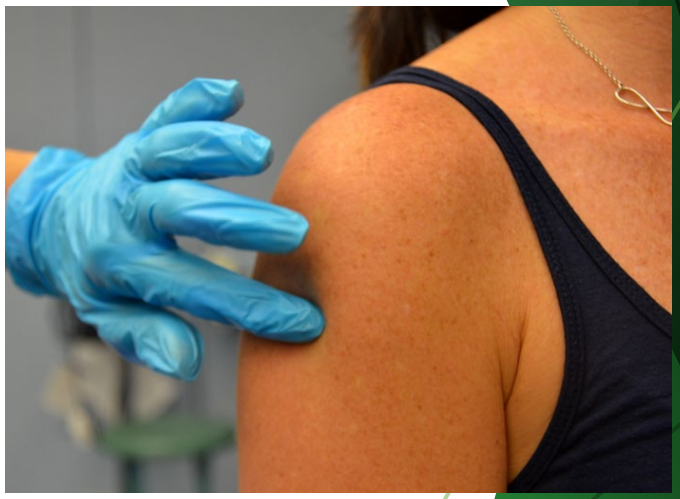
Positioning Older Children and Adults for Deltoid Injection

The deltoid muscle is a good candidate for intramuscular vaccination for clients older than one year of age for several reasons:

- It is easily accessible to the healthcare professional.
- It is a superficial and fairly thick muscle in most children and adults.
- It has an extensive blood supply, which promotes absorption of the vaccine after injection.

The following technique should be used to correctly position older children and adults for injection into the deltoid:

- Advise older children and adults to sit in a straight-back chair and position their arm in a manner that exposes the deltoid muscle and relaxes the arm.
- Encourage the client to place their forearms and hands in a relaxed position on their upper thigh.

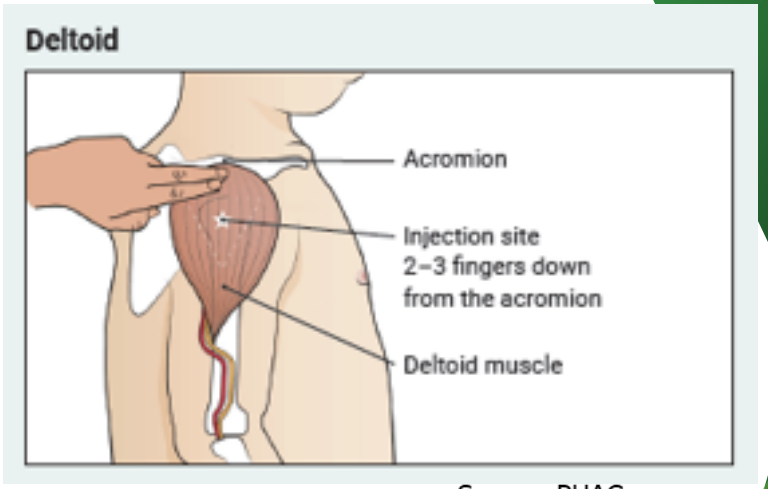


Manitoba

Landmarking the Deltoid Site

- Expose the shoulder completely.
- Identify the injection site by drawing an imaginary triangle with its base at the lower edge of the acromion process and its peak above the axillary fold. The injection site is in the center of the triangle – the central and thickest portion of the deltoid muscle.
- For adults and older children: 2.5 to 5 cm below the acromion process.
- For younger children: 2.5 to 3 cm below the acromion process.

To avoid causing injury, do not inject too high (near the acromion process) or too low.

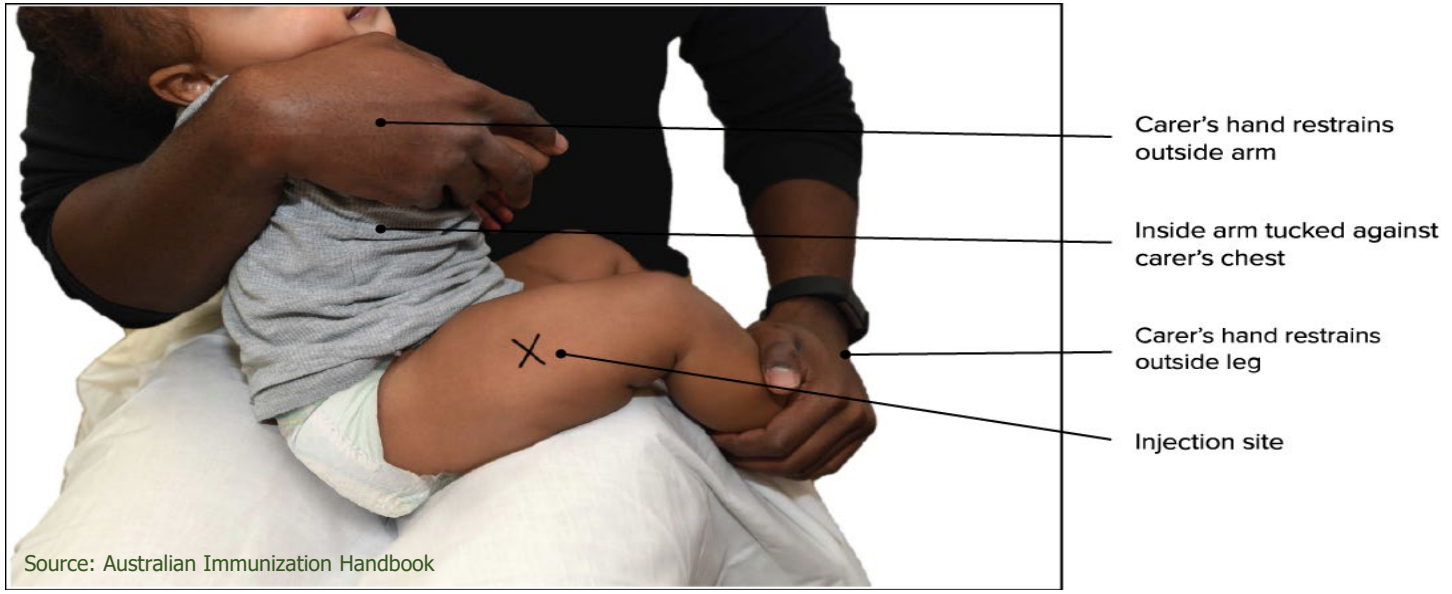


Source: PHAC

Manitoba

Positioning Infants and Young Children for Vastus Lateralis Injection

- Instruct the parent/caregiver to hold the infant or young child in a "cuddle" or semi-recumbent position on their lap. The child's head should rest on the parent's/caregiver's arm.
- Ensure the child's arm that is positioned closest to the parent/caregiver is tucked into the caregiver's side or placed behind the caregiver's back. The child's other arm is controlled with the caregiver's arm and hand placed over it.
- Instruct the parent/caregiver to hold the child's outside leg at the calf or knee. Alternately, the parent/caregiver may place the child's feet between their legs and secure the child's legs with their hand.
- The vastus lateralis site should be clearly visible and the child is firmly stabilized by the parent/caregiver to prevent movement during the immunization.

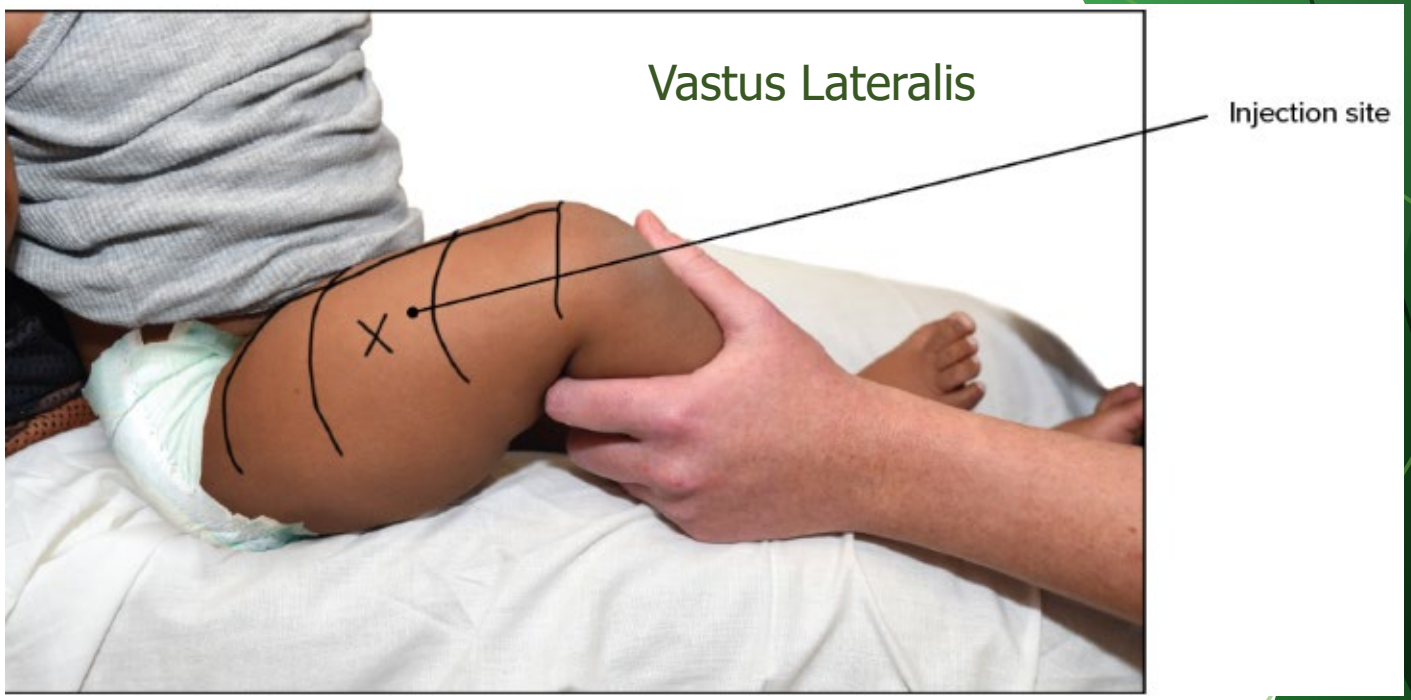


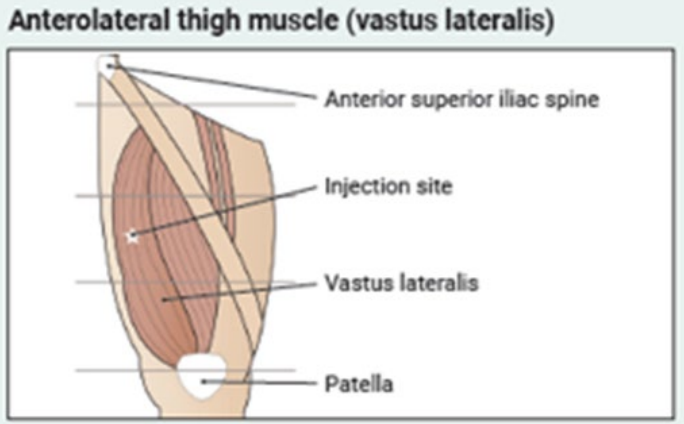
Source: Australian Immunization Handbook

Manitoba

Landmarking the Vastus Lateralis Site

- Define the site by dividing the space between the trochanter major (greater trochanter) of the femur and the top of the knee into three parts; draw a horizontal median line along the outer surface of the thigh.
- The injection site is in the middle third of the anterolateral thigh.





Source: PHAC

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Assessing the Injection Site

- The two recommended intramuscular (IM) injection sites for immunizations are the deltoid and vastus lateralis (anterolateral thigh) muscles.
- For the majority of adults and children over the age of 1 presenting to the immunization clinics, the deltoid will be the most appropriate site for immunization.
- The vastus lateralis may be considered as an alternate site for young children or if the deltoid muscle is assessed as not an appropriate site.
- For infants less than 12 months of age, intramuscular immunizations are administered in the vastus lateralis as this site provides a larger muscle mass for better absorption.
- Do not administer active immunizing agents into the gluteal muscles (buttocks) due to the risk of reduced efficacy from poor absorption if the injection does not reach the muscle.
- When choosing the appropriate injection site, inspect the skin's surface for bruises, scars, or inflammation and palpate the site for masses, edema, or tenderness.
- Do not inject vaccine if any of these are found as there may be interference with absorption of the vaccine.
- If unavoidable, vaccines may be administered through a tattoo or superficial birthmark.

Manitoba

Selecting Needle Size

- For intramuscular injection (IM), select a needle size that is long enough to reach the largest part of the muscle, but not so long to reach the underlying bone. This helps to prevent the vaccine from being deposited into the subcutaneous (fat) tissue which:
    - Decreases the chance of local adverse effects (less redness and swelling at the injection site).
    - Ensures efficacy.
- For most clients, a 1" needle is usually used. Needle length may need to be adjusted based on the clinician's assessment of muscle size and subcutaneous tissue present.
- 1 ½" needle may be considered for individuals who are assessed as having larger muscle mass and a larger amount of subcutaneous tissue, such as well-developed or muscular individuals or individuals considered obese.
- 5/8" needle may be considered for individuals assessed as having less muscle mass and less subcutaneous tissue such as a younger child or elderly with under-developed or smaller amounts of muscle mass.
- The use of safety-engineered needles and syringes (e.g., protected needle devices) is preferred and, in many jurisdictions, mandated by law to reduce risk of injury.

Manitoba

Selecting Needle Size

Intramuscular Site and Needle Length Selection

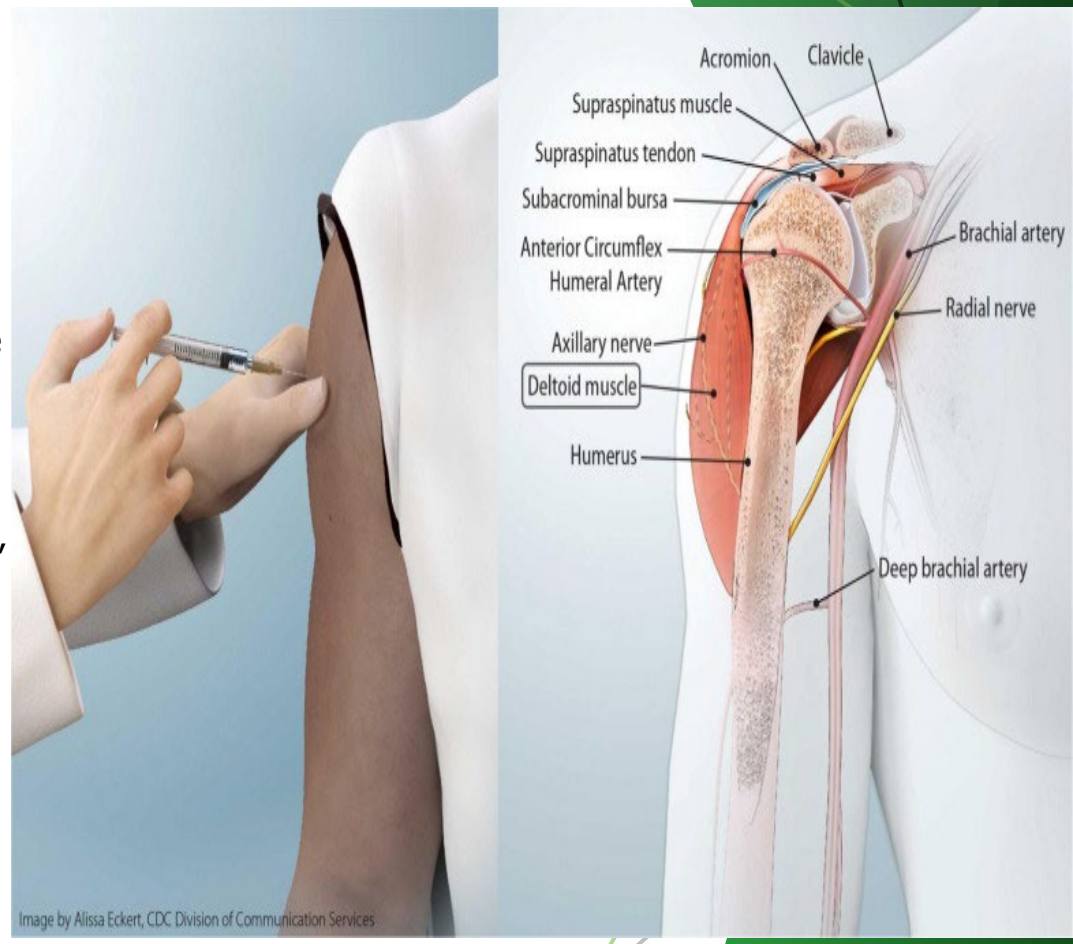
AGE	SITE	NEEDLE LENGTH
Infants (6 to 12 months)	Anterolateral thigh	1″
Young children (12 months to 3 years)	Deltoid	5/8″ to 1″
	Anterolateral thigh	At least 1″
Children 3 to 5 years	Deltoid	5/8″ to 1″
5 years and older	Deltoid	At least 1″

Manitoba

Intramuscular Injection Technique

The following technique is required for administering a vaccination into an intramuscular site:

- Ensure the appropriate needle length for IM injection site is chosen.
- Complete hand hygiene.
- Cleanse injection site with an alcohol swab by circling from the center of the site outward 2.5-5 cm (1-2 inches) and let dry.
- With your free hand, hold the skin firmly between your thumb and forefinger, isolating the muscle and stabilizing the limb:
  - The "flattening" technique involves using the non-dominant thumb and forefinger to spread and stretch the skin over the deltoid muscle prior to injection. This compresses the subcutaneous tissue and increases the likelihood of reaching the muscle. National needle selection guidelines are based on this technique, which is the most recommended approach.
  - The "bunching" technique involves using the non-dominant thumb and forefinger to pinch, or squeeze, the deltoid muscle prior to injection. This increases the muscle mass and minimize the chance of striking bone. The "bunching" technique is only recommended if the muscle mass is small (such as in young children with under-developed or smaller amounts of muscle mass.
- Insert the needle rapidly at a 90° angle and do not aspirate. Depress the plunger fully ensuring the entire dose is administered. Remove the needle immediately in one swift motion.
- A cotton ball can be used to apply pressure to the injection site for 30 seconds; this helps decrease bleeding and bruising. Do not massage the injection site; this can damage the underlying tissue.
- Activate the safety mechanism and discard the needle into sharps container (never recap the needle). If the injection device has a retractable safety mechanism, this will have been activated, and the needle will already be withdrawn.
- Complete hand hygiene.



18. Administering Multiple Products

Image: CBC.ca

Manitoba

Administering Multiple Vaccines

There are many advantages of administering multiple vaccinations at one visit:

- There is no delay in protection as it ensures individuals are protected against serious diseases earlier rather than later.
- There are fewer vaccine visits which saves time for clients, parents/legal decision makers and health care professionals, is more cost efficient, and enhances vaccine compliance.
- Fewer periods of discomfort for the individual due to the lower number of vaccine visits.

Some anxiety should always be expected from individuals who are about to receive multiple vaccines. Immunizers should be prepared to utilize strategies to reduce immunization injection pain and anxiety.

Manitoba

Administering Multiple Vaccines

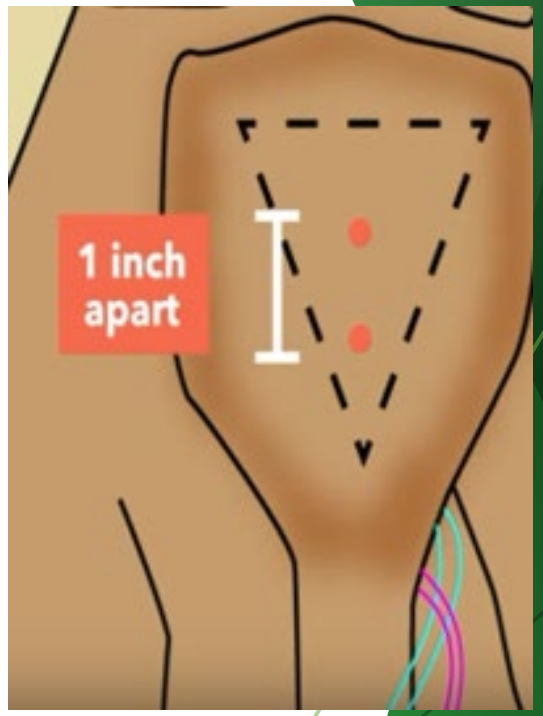
Immunizers should consider the following practices when administering multiple vaccines:

- Review recommendations for concurrent administration for each vaccine.
- It is best practice to draw up all required vaccines for the client at the same time; this ensures the client does not have to wait for each vaccine to be prepared between injections.
- Vaccines that are intended for separate administration should never be combined in the same syringe.
- Syringes should be labelled to identify which vaccine each syringe contains.
- The site of administration of each vaccine should be recorded so if an injection site reaction occurs, the associated vaccine can be identified (e.g. upper left deltoid, lower left deltoid)

Manitoba

Administering Multiple Vaccines

- When more than one vaccine is to be administered, it is preferable to use separate anatomic injection sites (different limbs) but is not necessary.
- When administering 2 or more vaccines in the same limb, separate the injection sites by as much distance as possible. A separation of at least 2.5 cm (1 inch) is preferred so local reactions are unlikely to overlap. In individuals where there is insufficient deltoid muscle mass, the anterolateral thigh muscle may be used.
- Vaccines that are known to cause the most stinging or injection site pain should be administered last.



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Administering Multiple Vaccines

- Generally, the maximum volume that can be administered by intramuscular injection in the deltoid is 1 mL, however the average volume may range from 0.5ml up to 2ml (infants and toddlers would fall at the lower end of the range, whereas adolescents and adults would generally fall on the higher end of the range).

- The decision regarding number of injections and maximum volume to be administered in a single injection site should be based on the age and assessed muscle mass of the individual.

Recommended Needle Sizes, Sites and Maximum Volumes for Intramuscular Injection (1,9,28-31)

Age	Site	Needle Length	Max Volume
< 28 days	Vastus lateralis	5/8"	1 mL
1 to < 12 months	Vastus lateralis	1"	1 mL
≥ 12 months to ≤ 2 years	Deltoid	5/8" - 1"	1 mL
	Vastus lateralis	1"	2 mL
> 2 years to < 5 years	Deltoid	5/8" - 1"	1 mL
	Vastus lateralis	1"	2 mL
5 years to 18 years	Deltoid	5/8" - 1"	1 mL[A]
	Vastus lateralis	1"	3 mL[A]
≥ 19 years	Deltoid	1 – 1 ½"	2 mL
	Vastus lateralis	1 – 1 ½"	5 mL

Source: http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%202%20-%20Imms/Appendix_B_Administration.pdf

Manitoba

19. Post-Vaccination

- Adverse Events
- Treatment of Anaphylaxis
- Vasovagal Syncope/Fainting
- Possible Side Effects
- Adverse Event Following Immunization (AEFI)

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Adverse Events

- All vaccines recommended for use in Manitoba are considered safe and are approved by Health Canada.
- However, as with all vaccines, adverse events may occur even though the client has been assessed as having no contraindications to the vaccine.
- The most common side effects of vaccines are soreness, redness or swelling at the site where the vaccine was given.
- The enhanced influenza vaccines may cause more soreness, redness and/or swelling where the vaccine was given (compared to the standard-dose influenza vaccine).
- Other symptoms that may occur are fever, headache, fatigue and joint pain.

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Adverse Events

- All clients should be monitored for 15 minutes post immunization for any adverse effects/events that may require immediate attention (i.e. syncope or anaphylaxis).
- Clients may be directed to stay for a 30-minute observation period if the immunizer has identified potential health concerns (allergy of concern or history of adverse reactions to immunizations).
- Risk of anaphylaxis is approximately 1 out of 1 million. Though very rare, anaphylaxis can occur following immunization and must be managed quickly and appropriately. If anaphylaxis occurs, the majority of cases arise within 15 minutes. However, some cases occur beyond 30 minutes. Usually, two body systems will be affected such as cardiovascular and integumentary systems.
- Every vaccine provider should be familiar with the signs and symptoms of anaphylaxis and be prepared and equipped with an anaphylaxis kit to act quickly.
- It is important to review the site protocol to manage post immunization emergencies (i.e. anaphylaxis).
- Well established anaphylaxis response plans should be determined by the immunization team prior to any immunization clinic, including determining roles in anaphylaxis response (e.g. initiating emergency response (911), CPR, epinephrine administration, etc.).

Anaphylaxis and other acute reactions following vaccination: Canadian Immunization Guide

Manitoba Provincial Anaphylaxis Protocol: Community Health Immunization

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Treatment of Anaphylaxis

Epinephrine is the lifesaving drug for anaphylaxis.

- Epinephrine assists to counteract the effects of an anaphylactic response by constricting blood vessels, raising blood pressure and pulse, and relaxing the smooth muscle in the lungs to improve breathing.
- It must be administered by intramuscular injection (IM). The preferred administration site is in the vastus lateralis muscle.
- Epinephrine is a short acting drug. Doses may need to be repeated every 5 minutes if symptoms persist (most clients improve with 1- 2 doses).
- Adverse effects of epinephrine may include anxiety, nausea and vomiting, headache, and heart palpitations.

If anaphylaxis is suspected, it should be administered immediately.

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Vasovagal Syncope/Fainting

Vasovagal syncope or fainting, is an event that can occur within the context of giving immunizations with rapid onset and recovery. It is common in those who have anxiety when receiving immunizations.

Some of the common signs and symptoms may include complaint of feeling faint or light-headed, pallor, loss of consciousness which may be accompanied by brief clonic seizure activity, salivation, low pulse, nausea and vomiting, diaphoresis (sweating), cool clammy skin, respiratory rate is normal and not labored, but may be shallow, cardiovascular signs include bradycardia and faint peripheral pulses but usually the carotid pulse is strong.

Vasovagal Syncope Management

- Place the client in a supine (lying on their back) position and elevating the lower extremities.
- If vomiting has occurred or is imminent, position the client lying on one side.
- Pregnant clients should be positioned on their left side.
- Apply a cool pack to back of neck to assist with diaphoresis.
- Recovery of consciousness and resolution of limb jerking usually occurs within a minute or two.
- The client may remain pale, diaphoretic and mildly hypotensive for several minutes.
- Continue monitoring and providing support to the client who has fainted until signs and symptoms have stabilized.
- If client has fallen and sustained an injury (e.g., concussion) they may need to be further assessed by a health care practitioner.

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Vasovagal Syncope/Fainting

Table 1: Key distinguishing features of anaphylaxis and vasovagal syncope.

Clinical features	Anaphylaxis	Vasovagal syncope
Onset from time of immunization	Within minutes up to 4 hours after injection; most within 2 hours	During or within minutes of injection
Skin	Urticaria, angioedema, pruritus, erythema	Generalized pallor, cold clammy skin
Respiratory	Cough, wheeze, stridor, respiratory distress, rhinorrhea, sneezing	Normal respiration – may be shallow but not laboured
Cardiac	Tachycardia	Bradycardia
Neurologic	Sense of severe anxiety and distress; loss of consciousness – no improvement once supine or in head down position	Sense of light-headedness; loss of consciousness – improves once supine or in head down position; may be transient jerking of the limbs and eye-rolling

Source: PHAC

Adverse Event Following Immunization (AEFI) Reporting

- An Adverse Event Following Immunization (AEFI) is any untoward medical occurrence in a vaccinee that follows immunization. It may be any unfavourable and/or unintended sign, abnormal laboratory finding, symptom or disease. *The vaccine or its administration may not necessarily have been the cause.*
- In accordance with Section 59 of The Public Health Act, health care providers are to report a reportable AEFI within seven days of becoming aware of the AEFI. Furthermore, health care providers should report a serious AEFI within one business day, which can be by telephone, followed by the complete written report within 72 hours.
- A reportable AEFI is an event that:
    1. is temporally associated with a vaccine AND
    2. has no other clear cause at the time of reporting
- Of particular interest are AEFIs that are serious, unexpected and/or of special interest. But ALL AEFIs that meet (1) and (2) above should be reported, unless they are only mild local reactions that are not overly concerning to the vaccine recipient.
- Information contained in the User Guide for the Completion and Submission of the AEFI Reports will provide immunization providers with direction for how to correctly complete and submit either in PHIMS or by using the PDF reporting form. For providers opting to use the PDF form, there are instructions at the bottom of the last page for how and where to submit the completed form.
- For further information, refer to: Vaccine Safety | Province of Manitoba

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20. Documentation and Immunization Records

- Documentation
- Reporting

Image: Sustainable Man

Public Health Information Management System

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Documentation

Vaccine providers are required to complete an assessment to determine eligibility, obtain informed consent and document all pertinent immunization information as outlined on the COVID-19, influenza and pneumo immunization consent form: Province of Manitoba | Vaccine-Preventable Respiratory Illnesses

Every vaccine administered must be documented and accounted for:

- All immunization records must include at minimum:
- Client name, birthdate, and Personal Health Identification Number (PHIN)
- Date of administration
- Vaccine product and manufacturer
- Lot #
- Dose
- Site and route of administration
- Provider
- Reason for immunization
- Any other regulatory requirements

Non-Manitoba Residents:

- All doses administered to non-Manitoba residents are to be reported using the appropriate forms.
- For these clients, please indicate on the form "No Personal Health Identification Number (PHIN)".
- Please provide as much information on the person being immunized as possible (e.g. name, date of birth, province or location of residence, health number from place of residence, etc.).
- Completed forms are to be submitted to the fax number indicated on the form: Vaccine Administration Reporting Form for Clients With No PHIN or Not Found in PHIMS

Vaccine Administration Reporting Form for Health Care Providers

Some sites (e.g. doctors' offices, hospitals) may unitize the inputting form rather than individual consent forms.

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Reporting

Public Health Information Management System (PHIMS)

- The Public Health Information Management System (PHIMS) is a secure, integrated electronic public health record.
- Registered users of the Public Health Information Management System (PHIMS) have the ability to view client immunization records and directly enter the required immunization information including the informed consent into PHIMS.
- For those that don't have direct access, the immunization information obtained on the Immunization Consent Form or Vaccine Administration Reporting Form is submitted as per your region/site's requirements to be entered into PHIMS so that all immunizations provided in Manitoba are within this immunization registry.
- Once this information has been entered into PHIMS, it is considered the official immunization document/record.

The following link provides further guidance on immunization documentation in PHIMS:
Public Health Information Management System (PHIMS) (phimsmb.ca)

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21. References & Helpful Resources

- Immunization Program Manual for Immunization Providers in Manitoba | Health | Province of Manitoba
- Communicable Disease Control | Health | Province of Manitoba (gov.mb.ca)
- National Advisory Committee on Immunization (NACI): Statements and publications - Canada.ca
- Canadian Immunization Guide - Canada.ca
- Immunize.ca
- *Association of Influenza Vaccination With Cardiovascular Risk, a Meta-analysis:* (who.int)https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791733
- *The impact of influenza vaccination on cardiovascular diseases:* https://academic.oup.com/eurheartjsupp/article/25/Supplement_A/A25/7036725

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