

Immunization Clinics: Pre-loading Vaccines

Provincial Population & Public Health Guideline

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Date approved: April 5, 2024

Deadline for next review: March, 2027

Document history: New

1. Purpose

To provide recommendations and best practice guidance regarding pre-loading vaccines during immunization clinics.

2. Scope

This guideline applies to immunizers for all public health immunization clinics. It assists to inform practice and mitigate the risks when providing immunizations in clinic settings (e.g., school-based clinics, influenza and COVID-19 clinics).

This document may not pertain to immunization clinics during a vaccine preventable mass outbreak or pandemic.

3. Background

Public Health is a key leader in providing immunizations in community-based clinics. Immunization clinics can vary in size, settings, and types of vaccines that are being provided. With the increase in multiple types and formulations of publicly funded vaccines being provided at each individual public health immunization clinic, the risk of errors also increases.

Pre-loading vaccines in preparation for vaccine administration for multiple clients has been a practice used during the annual influenza campaigns and, mass outbreak and pandemic immunization campaigns (e.g., H1N1 and COVID-19). To improve efficiencies in client flow, a single type or formulation of a vaccine was pre-loaded by either the immunizer or by another health care professional. The practice of pre-loading syringes to be administered by another health care professional was only acceptable during the

H1N1 and COVID-19 campaigns, as it was supported by the regulatory bodies of the participating health care professions, along with regional and provincial public health support, due to an emergent response. It also required quality assurance practices to ensure all the health care professionals were competent in skill and judgement, and vaccines were pre-loaded safely, correctly, used within the appropriate time interval, and cold chain measures were followed.

In general, the Canadian Immunization Guide clearly and strongly discourages the practice of pre-loading syringes for the following reasons:

- uncertainty of vaccine stability in syringes,
- risk of contamination,
- increased potential for vaccine administration errors,
- and vaccine wastage.

4. Definitions

Pre-loading: (or pre-drawing) drawing up multiple doses of vaccine(s) into syringes in advance of administration.

5. Procedures

5.1 Recommendations for all immunization clinics:

- Pre-loading doses of vaccine for multiple clients is strongly discouraged.
- Vaccines are only to be drawn up by the immunizer who will be administering the vaccine to the client.
- Vaccines that are not pre-loaded by the manufacturer are to be drawn into the syringe and to be used as soon as possible due to the uncertainty of vaccine stability in the syringe. If there is a delay in administration, vaccine administrators need to consider: the type of vaccine (i.e., live vs inactivated); the potential of exposure to light; the potential for interaction between the vaccine and the material used in the syringe; and the manufacturers' specifications for vaccine storage.
- Vaccines that are pre-loaded by the manufacturer should preferably be removed from their packaging immediately prior to administration to the client. Once the pre-loaded syringe has been removed from its packaging, it creates a potential risk for contamination.
- Documentation to be completed after vaccine administration and before the next client interaction.

5.2 Additional recommendations for immunization clinics that provide one type or formulation of a vaccine:

- Pre-loading vaccines may be considered for efficiencies.
- Immunizers will only pre-load vaccines they will be administering.
- Immunizers will only prepare the doses required AND to be used within a defined time frame that is based on the following considerations:
 - type of vaccine (i.e., live vs inactivated);
 - potential of exposure to light;
 - potential for interaction between the vaccine and the material used in the syringe;
 - and the manufacturers' specifications for vaccine storage.
- Vaccine cold chain measures are to be always adhered to.

5.3 Additional recommendations for immunization clinics that provide multiple types or formulations of vaccines:

- Pre-loading vaccines at a clinic in which more than one type or formulation of vaccine is being provided is not recommended.
- Instead, best practice recommendations would include:
 - Reviewing the client consent form and/or discussing with the client or legal decision maker to determine which vaccine(s) the client requires and is eligible for.
 - Drawing up the vaccine(s) that the individual client requires, to ensure that the client receives the correct vaccine(s).
 - Labelling which vaccine is in each syringe, if giving multiple vaccines, to prevent errors.
 - Noting the location of where each vaccine was administered.
- Pre-loading of vaccines may be permissible only in exceptional situations. This may be due to operational circumstances in which drawing up of the vaccine(s) cannot occur at the immunization station (i.e., correctional facilities in which safety and security protocols are required to be followed). In all situations, vaccines are to be drawn up by the immunizer who will be administering the vaccine.

6. Validation and References

Canadian Immunization Guide: Vaccine Administration Practices

<https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian->

[immunization-guide-part-1-key-immunization-information/page-8-vaccine-administration-practices.html](#)

Centers for Disease Prevention and Control: Vaccine Administration
<https://www.cdc.gov/vaccines/hcp/admin/admin-protocols.html>

Immunization Program/Clinic Infection Prevention and Control (IP&C)
Procedures/Processes
<https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/ipc-procedures-processes.pdf>