Winnipeg Regional Health Authority / Office régional de la santé de Winnipeg Caring for Health / À l'écoute de notre santé	**WRHA Immunization Program Clinical Practice Guidelines**	
TITLE: Vaccine Administration Practices		CODE

APPROVED BY:

Program	Date	Program	Date
☑ Population and Public Health	Oct.6,2010	☐ Primary Care	
☐ Occupational Health		☐ Home Care	
☐ Infection Prevention and Control		☐ Personal Care Home	
☐ Community Health Services Leadership Team		☐ Pharmacy	

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PAGE

1.0 PURPOSE

1.1 To administer all vaccines appropriately to ensure optimal safety and efficacy of vaccines.[1]

2.0 DEFINITIONS

2.1 Comforting hold: involves embracing the child and securing all four limbs

2.2 PHIMS: Personal Health Information Management System

3.0 SCOPE & GOAL

3.1 All providers of vaccines shall receive education and competency-based training on vaccine administration before providing immunization services based on program requirements.

3.2 Vaccines shall be administered using the recommended dose, route, site and schedule to optimize vaccine effectiveness and reduce the risk of local reactions or other adverse events.

3.3 The immunization provider will provide the immunization in a safe and comfortable manner.

3.4 The immunization provider shall not physically restrain a child or adolescent, who firmly refuses immunization. In certain situations, with the parent/substitute decision-maker approval, comforting hold procedures can be used.

4.0 PROCEDURE

4.1 Eligibility, screening, and informed consent:

4.1.1 Providers will ensure:

4.1.1.1 Immunization records are reviewed in PHIMS and recommendations made on which vaccines are due. Refer to the Manitoba Routine Immunization Schedules

[1] Canadian Immunization Guide Evergreen version

4.1.1.2 Information on the vaccine(s) (e.g. fact sheets) is provided and reviewed by client.

4.1.1.3 All questions are answered to the satisfaction of the client.

4.1.1.4 Health history is reviewed for any contraindications and/or precautions.

4.1.1.5 Clients are instructed on how to monitor and report adverse events following immunization.

4.1.1.6 Informed consent is received and documented.

4.1.1.7 If applicable, confirm Physician order/standing order.

4.1.1.8 Refer to CPG - Informed Consent for Immunizations

4.2 Positioning, Comforting Hold, and Pain control

4.2.1 The immunization provider must accommodate for the client's comfort, safety, age, activity level, and the site of administration when considering client positioning and hold How to Hold Your Child during Vaccinations | CDC

4.2.2 Pain Management During Immunizations for Children

4.3 Infection Control

4.3.1 Healthcare/Immunization providers should follow Routine Practices to minimize the risks of disease transmission during vaccine administration.

4.3.1.1 Staff must adhere to guidelines regarding the use of Personal Protective Equipment (PPE). Immunization clinics are considered a "green zone." Effective May 10, 2023, PPE requirements will be lifted in most areas and the Manitoba health system will return to PPE use according to Routine Practices and Additional Precautions. Refer to PPE resources - Shared Health (sharedhealthmb.ca)

4.3.1.2 Immunization providers should follow the 4 Moments of Hand Hygiene. Alcohol-based hand sanitizers are an alternative to hand washing with soap and water when hands are not visibly soiled. Hand hygiene should be performed before donning gloves and after removing gloves.

4.3.1.3 Glove use during immunization is not routinely recommended unless the skin on the vaccine provider's hands is not intact or when administering Bacille Calmette-Guérin (BCG) or smallpox vaccine. If gloves are worn, they should be discarded between vaccine recipients and a new set of gloves donned for each client.

4.3.1.4 Prior to withdrawal of vaccine into the syringe, the vaccine vial should be uncapped, the stopper cleaned with a suitable disinfectant (e.g., isopropyl alcohol) and the stopper allowed to dry.

4.3.1.5 Before injection, the skin should be cleansed with a suitable antiseptic such as an alcohol wipe and allowed to dry.

4.3.1.6 A separate sterile needle and syringe must be used for each injection.

4.3.2 Infection Control for Immunization Clinics - Refer to CPG Infection Control for Immunization Clinics

4.3.3 Safety Engineered needles **and** Equipment Disposal – Refer to WRHA Policy - Sharps, Safe Handling and Disposal

4.4 Vaccine Preparation:

4.4.1 Vaccine inspection prior to vaccine administration:
4.4.1.1 Check vaccine label to ensure selection of correct vaccine and diluent (if applicable).
4.4.1.2 Check the expiry date on the vaccine and vaccine diluent (if applicable) to verify that they have not expired.
4.4.1.3 Inspect for any irregularities, such as particulate matter in the contents, or damage to or contamination of the vial or its contents.
4.4.1.4 Immunization providers to report any vaccine or biologic product complaints to Manitoba Health. Refer to the following: Vaccine Supply Problem Report (gov.mb.ca)

4.4.2 Vaccine reconstitution- Refer to product monograph for specific instructions.

- *For Population Public Health*- Refer to Decision Support Tool: Use of Filter Needles in PPH

4.4.3 Vaccine must be drawn up according to manufacturer's recommendations.
4.4.4 Vaccine must be drawn up by the immunization provider.
4.4.5 The needle should not be changed between withdrawing vaccine from the vial and administering the vaccine to the client, unless the needle is contaminated or damaged.

4.5 Preloading syringes is generally not recommended.

4.6 Injection Site, Route, Volume and Needle size for Vaccine and Immune Globulin Administration

4.6.1 Injection site, volume, route, needle size - *Refer to* BC Immunization Manual *See table 14.1.1*

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
	Vastus lateralis	1"	3 mL
≥ 19 years	Deltoid	1 – 1 ½"	2 mL
	Vastus lateralis	1 – 1 ½"	5 mL

4.6.2 Blood products, human immune globulin and timing of immunization

4.6.2.1 Administration of immune globulin (Ig) preparations and certain blood products can interfere with the immune response to parenteral live virus vaccines if given concomitantly with or shortly before or after the vaccine - Refer to the following section of the Canadian Immunization Guide for minimum intervals: Blood products, human immunoglobulin and timing of immunization: Canadian Immunization Guide

4.6.2.2 Injection volume for Immune Globulin Administration (HBIg, Ig, TIg, VarIg, RabIg)- *Refer to BC Immunization Manual* Immune Globulin Preparations

4.7 Multiple Injections

4.7.1 All opportunities to immunize should be used. Giving multiple vaccines at the same clinic visit is encouraged as it helps to ensure that individuals are up-to-date with the vaccines required for their age and risk factors. Practice considerations for multiple injections include the following:

4.7.1.1 When drawing up multiple vaccines, it is recommended to do so for an individual client only.
4.7.1.2 Syringes should be labelled to identify which vaccine each syringe contains.
4.7.1.3 The site of administration of each vaccine should be recorded, so that if an injection site reaction occurs, the associated vaccine can be identified. (e.g., upper left deltoid or lower left deltoid).
4.7.1.4 If multiple parenteral injections are required, whenever possible, separate anatomic injection sites (different limbs) should be used. If multiple injections in the same limb are required, the injection sites should be separated by at least 2.5 cm (1 inch). In individuals where there is insufficient deltoid muscle mass, the anterolateral thigh muscle can be used. *(For school based clinics providing an immunization in the anterolateral thigh muscle may not be feasible) - Refer to* Multiple Intramuscular Injections Resource
4.7.1. 5 Ensure not to exceed the maximum volume per site. (See section 4.6.1)
4.7.1. 6 Vaccines that are known to cause the most injection site pain (e.g., Prevnar®13; M-M-R®II, human papillomavirus vaccines [HPV]) should be administered after other vaccines.
4.7.1. 7 If a vaccine and an Ig preparation are administered concurrently (e.g., tetanus toxoid-containing vaccine and tetanus Ig), separate anatomic injection sites (different limbs) should be used for each injection.

4.8 Vaccine administration

4.8.1 The 7 "rights" for safe and accurate administration of immunization must be respected for all immunizations and are as follows:

- Right patient /client
- Right medication / vaccine
- Right dose
- Right route
- Right time / schedule
- Right reason
- Right documentation

4.8.2 Vaccine Administration Errors**:**

4.8.2.1 Upon discovery of any deviation from the above administration practices, the immunization provider is required to immediately notify their manager.
4.8.2.2 Consult with their designated clinical support (i.e. communicable disease coordinator, clinical nurse specialist) regarding next steps and follow- up recommendation with the parent / client
4.8.2.3 Communicate with the parent / client and provide recommendations.
4.8.2.4 Initiate the Occurrence Report as per program processes. i.e. RL6 or occurrence reporting form. – *Refer to WRHA policy:*
Patient Safety Events: Management and Disclosure of Occurrences, Near Misses and Critical Incidents

4.9 Documentation of immunization:

4.9.1 Immunization providers will document all immunizations given and ensure they are entered into PHIMS. Refer to CPG - Documentation and Record Keeping of Immunizations .

4.10 Adverse events following immunization

4.10.1 Individuals should be observed for a minimum of 15 minutes after vaccine administration to monitor for potential allergic reactions. Refer to Manitoba Provincial Anaphylaxis Protocol

4.10.2 If an adverse event following immunization is observed or subsequently reported, providers will complete an AEFI report within 7 days of notification, or within 24 hours if serious. Refer to CPG - Adverse Events Following Immunization

4.11 Recommendations for further immunization

4.11.1 Clients should be instructed when they are due for further immunization.

5.0 VALIDATION

5.1 Canadian Immunization Guide, Evergreen version
5.2 Manitoba Health Seniors and Active Living Communicable Disease Control Immunization (Vaccination)
5.3 BC Immunization Manual, BC Centre for Disease Control
5.4 Centers for Disease Control and Prevention (CDC)
5.5 Immunize Canada

6.0 RECOMMENDED READING

6.1 Provincial Immunization Competency Guideline - Manitoba

6.2 Immunization Competencies for Health Professionals - Canada.ca