

First Nations & Inuit Health Branch Alberta Region Directive			Management of Anaphylaxis Post-Immunization
Distribution:	All Community H Nursing Stations	ealth Centres and	
Effective: Approval Date:	02/04/2021 02/04/2021		Applies to: Governing Body Leadership & Operations Programs & Services
Revision:	1	Sheet: 1 of 1	Client, Family & Community
Approved by:	Wadish Gacoub Dr. Wadieh Yacoub, Senior Medical Officer of Health		

## 1. Purpose

Anaphylaxis is an acute hypersensitivity reaction that is characterized by sudden onset, rapid progression of symptoms, and involvement of multiple systems. With prompt recognition and appropriate medication, anaphylaxis can be treated effectively. However, failure to administer epinephrine and rapidly manage the situation can be life-threatening and death can occur within minutes. As such, the purpose of this directive is to provide clinical guidance and support to healthcare professionals, who are providing immunization services under the direction of the First Nations and Inuit Health Branch (FNIHB) Medical Officers of Health (MOHs), in the treatment and management of patients who experience suspected anaphylaxis post-immunization. This will address professional practice requirements, ensure a consistent approach for anaphylaxis management, and support access to care.

#### 2. Directive

The Indigenous Services Canada (ISC) FNIHB MOHs authorize the treatment and management interventions outlined in the *Guidelines for the Management of Anaphylaxis Related to Immunization* to be performed by regulated and trained healthcare professionals (HCP) to treat and manage patients who exhibit the signs and symptoms of suspected anaphylaxis post-immunization at health centers/facilities in Alberta First Nations communities.

#### **Applicability**

Under specific circumstances, a *Trained HCP* following assessment may administer the recommended dose(s) of **epinephrine IM**, as per the guideline, when:

- The vaccine recipient is experiencing signs and symptoms of suspected anaphylaxis postimmunization, and
- Administration of epinephrine is required as a life-saving intervention, and



• The dose of epinephrine IM is administered by the one who prepared it.

Under specific circumstances, a *Trained HCP* following assessment may administer the recommended dose of **diphenhydramine hydrochloride (Benadryl®) IM**, as per guideline, when:

- Epinephrine, up to a maximum of 3 doses, has already been administered, and
- Vaccine recipient is stable but still experiencing itching, hives, flushing, angioedema, and nasal/eye symptoms, and
- If transport to a greater level of care (e.g. acute care facility) cannot occur within 30 minutes

<u>Please note</u>: **Diphenhydramine hydrochloride (Benadryl®) PO** shall not be used for anaphylaxis management.

In cases of suspected anaphylaxis post-immunization, the intramuscular medications shall be administered by a *Trained HCP* who:

- Is a regulated member of a health professional body under the Health Professions Act (Alberta) or is a registered member of a designated health discipline under the Health Disciplines Act (Alberta),
- Is authorized under the respective regulatory college, respective statute, and regulations to administer the medication,
- Practices within their scope of practice and can administer the medication via IM route, and
- Adheres to their profession's Standards of Practice

HCPs must be competent (with knowledge and skill) to assess and manage suspected anaphylaxis following immunizations, accordingly. The training requires HCPs to:

- Complete an annual review of the management of anaphylaxis following immunization,
- Review the Guidelines for the Management of Anaphylaxis Related to Immunization,
- Review the Anaphylaxis Quick Reference Poster and Anaphylaxis Procedure Checklist prior to each immunization Clinic, and
- Assess the Anaphylaxis Kit for the integrity of its contents

### Signs and Symptoms of Suspected Anaphylaxis

The *Trained HCP* shall identify the signs and symptoms of suspected anaphylaxis by assessing the patient's:

- Airway, breathing, and circulation,
- Skin and/or mucosa,
- Gastrointestinal status, and
- Mental and neurological status



Treatment with epinephrine IM should be provided if anaphylaxis is suspected post-immunization based on possible exposure to a trigger allergen and clinical presentation. This includes:

- Patients that were exposed to an *unknown allergen* and present with symptoms from the integumentary system, and at least one (1) other symptom from the respiratory or cardiovascular system.
- Patients that were exposed to a *known allergen* and present with at least (1) symptom from two
  (2) or more body systems (integumentary, respiratory, cardiovascular, neurologic, and gastrointestinal).
  - In *rare circumstances*, the cardiovascular system may be the only one involved. The patient will present with hypotension.

Body System	Percentage of Episodes	Signs and Symptoms (One or more may be present)
Integumentary	Up to 80%	Flushed skin, redness, generalized hives, itchiness, swelling (face, lips, tongue)
Respiratory	Up to 70%	Stridor, hoarseness, vocal voice changes, grunting, drooling/difficulty swallowing, sneezing, rhinorrhea, coughing, dyspnea, bronchospasm, tachypnea, nasal flaring, shortness of breath, respiratory arrest
Cardiovascular	Up to 45%	Tachycardia, hypotension, arrhythmias, diaphoresis, pallor, cyanosis, headache, sweating, cardiac arrest
Gastrointestinal	Up to 45%	Nausea, vomiting, diarrhea, cramping, abdominal pain, incontinence
Neurological	Up to 15%	Irritability, restlessness, drowsiness, dizziness, lethargy, weakness, reduced level of consciousness, confusion

# Treatment and Management of Anaphylaxis

*Trained HCPs* shall follow the treatment and management interventions outlined in the *Guidelines for the Management of Anaphylaxis Related to Immunizations,* Section 6. Anaphylaxis Management, Page 15 to 21.

# Follow-up Documentation and Reporting

After the adverse event, the *Trained HCP* shall complete the:

- Anaphylaxis Management Record to document
  - Onset and progression of signs and symptoms
  - Medication(s) administered (including the time of administration, dosage, and number of doses given)
  - Monitoring and follow-up care provided
- Alberta Adverse Event Following Immunization Report
  - Forward the completed report to FNIHB, Alberta Regional Office as soon as reasonably possible



After the initial management of the situation, the *Trained HCP* shall notify the:

- FNIHB MOHs on-call either in person or via phone
- Regional CDC Nurse manager either in person or via phone
- Parents/guardians, if applicable
- Zone Nurse Manager
- Nurse-in-Charge/Supervisor

## 3. Scope

All healthcare professionals who are providing immunization services, under the direction of the FNIHB MOHs, at health centres in Alberta First Nations communities are required to follow this Directive until further notice. This includes community health nurses and paramedics. Adjustments to this Directive may be made in the future to expand to other service areas, to include other health professionals, and will be communicated should this arise.

## 4. Accountability

Medical Officers of Health, Indigenous Services Canada, First Nations and Inuit Health Branch – Alberta Region

### 5. Revision

This Directive may be reviewed and/or revised in the future in response to new recommendations, guidelines or evidence, the changing context, and will be communicated to applicable healthcare professionals.

### 6. Definitions

Adverse event following immunization (AEFI): refers to an unfavorable health occurrence that a patient experiences after immunization. This event cannot be explained by the patient's medical history, recent disease or illness, or consumption of medication.

*Anaphylaxis*: is an acute hypersensitivity reaction that is characterized by sudden onset, rapid progression of symptoms, and involvement of multiple systems.

*Competence*: refers to the integration of knowledge, judgment, and skills that are required to practice safely and ethically.

*Emergency situation*: refers to a circumstance which requires immediate healthcare necessary to preserve life, prevent serious physical or mental harm, or alleviate severe pain.

Healthcare professional (HCP): is an individual who is a member of a regulated health discipline defined by the Health Professions Act, and who works within their scope of practice. In this directive, healthcare professionals refer to community health nurses and paramedics who are employed and/or contracted by ISC FNIHB and who work in health centres/facilities in Alberta First Nations communities.



*Patient or Client:* refers to an adult or child who is seeking, has requested, or received healthcare services from ISC FNIHB-employed or contracted workers. A client may also be referred to as a patient.

*Scope of practice*: is defined as the roles, functions, and accountabilities of the members of a profession. They are authorized by legislation to perform certain activities.

*Trained healthcare providers (HCPs)*: refer to individuals who have completed the appropriate education requirements (e.g. reviewed the *Guidelines for the Management of Anaphylaxis Related to Immunization*, reviewed the management of anaphylaxis following immunization, reviewed the Anaphylaxis Quick Reference Poster and Anaphylaxis Procedure Checklist, and assessed the Anaphylaxis Kit) and are competent in knowledge and skill in the assessment and management of suspected anaphylaxis post-immunization.



## 8. References

- Alberta Health Services. (2020). Anaphylaxis management: Administration of intramuscular epinephrine policy. Retrieved from https://extranet.ahsnet.ca/teams/policydocuments/1/clp-anaphylaxis-mgmt-epi-hcs-223.pdf
- Alberta Health Services. (2020). Anaphylaxis management: Intramuscular epinephrine frequently asked questions (FAQ) August 2020). Retrieved from https://insite.albertahealthservices.ca/main/assets/tms/hpsp/tms-hpsp-anaphylaxis-faq.pdf
- Alberta Health Services. (2020). *Epinephrine*. Retrieved from https://myahs.ca/pharmacy/pm/pm\_preview.asp?id=7977
- Alberta Health Services. (2019). *Policy: Medication administration*. Retrieved from https://extranet.ahsnet.ca/teams/policydocuments/1/clp-prov-med-admin-hcs-244.pdf
- Arnold, J. & Williams, P. (2011). Anaphylaxis: Recognition and management. *American Family Physician*. 1111-1118(10). Retrieved from https://www.aafp.org/afp/2011/1115 /p1111.html
- BC Centre for Disease Control. (2019). Anaphylaxis: Initial emergency treatment by nurses (Adult & Pediatric) clinical decision support tool. Retrieved from http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Immunization /Vaccine%20Info/Anaphylaxis-Provincial\_DST.pdf
- College & Association of Registered Nurses of Alberta. (2019). *Registered nurse prescribing schedule 1 drugs and ordering diagnostic tests.* Retrieved from https://nurses.ab.ca/docs/default-source/document-library/standards/registered-nurse-prescribing-schedule-1-drugs-and-ordering-diagnostic-tests-requirements-and-standards.pdf?sfvrsn=67eba52b\_14
- College of Registered Nurses of Nova Scotia. (2015). *Medication guidelines for registered nurses.* Retrieved from http://nperesource.casn.ca/wp-content/uploads/2017/01/Medication-Guidelines.pdf
- Dayneka, N., Jensen, C. & Hildebrand, K. (2020). *Canadian immunization guide: Anaphylaxis and other acute reactions following vaccination chapter update.* Retrieved from https://www.canada.ca/content/dam/phac-aspc/documents/services/reportspublications/canada-communicable-disease-report-ccdr/monthly-issue/2020-46/issue-11-12nov-5-2020/ccdrv46i1112a04-eng.pdf
- Province of Alberta. (2020). *Health professions act*. Received from https://www.qp.alberta.ca/documents/Acts/H07.pdf
- Public Health Agency of Canada. (2020). *Anaphylaxis and other acute reactions following vaccination: Canadian immunization guide.* Retrieved from https://www.canada.ca/en/publichealth/services/publications/healthy-living/canadian-immunization-guide-part-2-vaccinesafety/page-4-early-vaccine-reactions-including-anaphylaxis.html



- Public Health Agency of Canada. (2017). *Vaccine administration practices: Canadian immunization guide*. Retrieved from https://www.canada.ca/en/public-health/services/publications/healthyliving/canadian-immunization-guide-part-1-key-immunization-information/page-8-vaccineadministration-practices.html#p1c7a3
- Simons, F., Ardusso, L., Bilo, M. et al. (2011). World Allergy Organization guidelines for the assessment and management of anaphylaxis. *World Allergy Organ J*. 13-37(4). Doi: 10.1097/WOX.0b013e318211496c