

COVID-19 VACCINATION: ANAPHYLAXIS CLINICAL SIGNS AND SYMPTOMS DOCUMENTATION

Taking note of clinical changes during the suspected anaphylactic event will help with the accuracy of the Adverse Event Following Immunization (AEFI) reporting and may help differentiate anaphylaxis from other adverse events, such as an Immunization Stress-Related Response (ISSR).

Administer EPINEPHrine immediately if anaphylaxis is suspected. Do not delay administration of EPINEPHrine if obtaining vitals is not feasible.

NS Health recommends the following anaphylaxis documentation:

1. [Initial Management of Anaphylaxis Following Immunization Documentation](#) form: to document care provided and facilitate information transfer.
 - *For NS Health/IWK clinics: form is located in NS Health Anaphylaxis Kit.*
2. CanImmunize, clinical notes field: to facilitate follow-up post-vaccination.
3. [Adverse Event Following Immunization \(AEFI\) form](#): **Required by law** to facilitate follow-up post-vaccination by Public Health. Complete as soon as possible, once the patient is transferred by EHS, and the clinical area is safe and ready to continue with immunizations.
 - See [It's the Law: Report Adverse Events Following Immunization \(AEFI\)](#)
 - For adverse events following COVID-19 vaccination submit the form to CovidAEFI@nshealth.ca

Signs or symptoms in **two or more body systems** are required for a clinical diagnosis of anaphylaxis (see Table 1).

It is recommended to record the following **vital signs** if possible:

- **Cardiac rate (pulse),**
- **Respiratory rate,**
- **Blood pressure, and**
- **Oxygen saturation.**

Indicate the vitals assessment time and, if administered, the EPINEPHrine dose and administration time.

Table 1: Anaphylaxis Clinical Diagnosis⁴

System	Signs and symptoms
General/CNS	Fussiness, irritability, drowsiness, lethargy, reduced level of consciousness, somnolence
Skin	Urticaria, pruritus, angioedema, flushing
Upper airway	Stridor, hoarseness, oropharyngeal or laryngeal edema, uvular edema, swollen lips/tongue, sneezing, rhinorrhea, upper airway obstruction
Lower airway	Coughing, dyspnea, bronchospasm, tachypnea, respiratory arrest
Cardiovascular	Tachycardia, hypotension, dizziness, syncope, arrhythmias, diaphoresis, pallor, cyanosis, cardiac arrest
Gastrointestinal	Nausea, vomiting, diarrhea, abdominal pain

Anaphylaxis requires an accurate diagnosis. Anaphylaxis is a contraindication for future vaccination with the same COVID-19 vaccine platform. However, individuals with immunization stress-related responses (ISSR) may receive the same vaccine product in the future with preventative measures to minimize the occurrence of immunization stress-related responses (ISSR). The NS Health [Differences Between Anaphylaxis and Syncope/Fainting Infographic](#) and Table 2 compare anaphalaxis and ISSR.

Table 2: Differentiating Anaphylaxis and Immunization Stress-related Response (ISSR) (adapted from resource 5)

	<u>Anaphylaxis</u>	<u>Immunization Stress Related Response (ISSR)</u>	
		<u>General Anxiety Response</u>	<u>Vasovagal Reaction with Syncope</u>
Onset	Usually 5 min after immunization but may be delayed up to 4 h	Sudden, occurs before, during or shortly after (< 5 min) immunization	Sudden, occurs before, during or shortly after (< 5 min) immunization. May present after 5 min if the individual stands suddenly.

System	Anaphylaxis	Immunization Stress Related Response (ISRR)	
		General Anxiety Response	Vasovagal Reaction with Syncope
Skin	Generalized urticaria (hives) or generalized erythema, angioedema, localized or generalized, generalized pruritus with or without skin rash, generalized prickle sensation, localized injection site urticaria, red and itchy eyes	Pale, sweaty, cold, clammy	Pale, sweaty, cold, clammy
Respiratory	Persistent cough, noisy breathing and airway constriction: wheeze, stridor. If very severe, respiratory arrest.	Hyperventilation (rapid, deep breathing)	Normal to deep breaths
Cardiovascular	↑ heart rate, ↓ blood pressure, circulatory arrest	↑heart rate, normal or ↑systolic blood pressure	↓ heart rate with or without transient ↓in blood pressure
Gastrointestinal	Nausea, vomiting, abdominal cramps	Nausea	Nausea, vomiting
Neurological and other symptoms	Uneasiness, restlessness, agitation, loss of consciousness, little response when supine or lying flat	Fearfulness, light-headedness dizziness, numbness, weakness, tingling around the face/lips, hands, feet, and spasms in hands, feet	Transient loss of consciousness, good response once supine or lying flat, with or without seizure-like activity

Resources:

1. [PHAC: Adverse Event Following Immunization \(AEFI\) form](#)
2. [NS Health and IWK: Initial Management of Anaphylaxis Following Immunization Documentation](#)
3. [NS Health: Initial Management of Anaphylaxis Following Immunization care directive \(NSHA PH-CD-020\)](#)
4. [PHAC: Anaphylaxis and other Acute Reactions following Vaccination: Canadian Immunization Guide](#)
5. [WHO Immunization Stress-Related Responses](#)
6. [NS COVID-19 Vaccine Program: Information for Health Care Professionals](#)
7. [NS Health Differences Between Anaphylaxis and Syncope/Fainting Infographic](#)

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