



Management of Anaphylaxis for Pfizer-BioNTech and Moderna COVID -19 mRNA Vaccine for COVID Immunization Clinic – Medical Directive

Medical Advisory Committee Approved: 15JUL2021

☒ Harmonized

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Authorizing Prescriber(s)

Lakeridge Health (LH) Physician(s) for the COVID Immunization Clinic (CIC), Occupational Health (OH), Safety and Healthy Workplace Department (herein after referred to as Occupational Health) at LH.

Authorized to Whom

Regulated Health Care Providers (RHCP) working in the CIC and/or OH with the knowledge, skill, judgement and training to administer oxygen, administer intramuscular (IM) treatments, and administer a substance by injection or inhalation.

Patient Description/Population

Any patient of the CIC or Lakeridge Health Colleague (LHC) 17 years of age and older, who has received COVID-19 vaccine in the CIC and demonstrating signs and symptoms of a severe life-threatening anaphylaxis ([Appendix A](#)).

LHCs include:

- employees,
- privileged staff (physicians, dentists, midwives),
- volunteers,
- board members
- contract workers, and
- students

Order and/or Procedure

These procedures are not presented in sequential order; any one of or combination of these procedures below may be performed by an authorized RHCP.

The authorized implementer may administer EPINEPHrine, loratadine, diphenhydrAMINE, Salbutamol, to LHCs/patients who are determined to be experiencing anaphylaxis, using the procedure below and the table of orders shown in [Appendix A](#). Steps 1-4 should be done promptly and simultaneously.

1. Briefly assess circulation, airway, breathing, mental status, and skin.

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2. If signs of anaphylaxis are seen, call or direct someone to call:
 - At a hospital site (other than Whitby): a Code Blue by dialing 611
 - At a non-hospital site or Whitby: Call 911.
3. Position the LHC/patient on their back or in a position of comfort if there is respiratory distress; elevate the lower extremities. Place the LHC/patient on their side if vomiting or unconscious.
4. Inject EPINEPHrine intramuscularly in the mid-anterolateral aspect of the thigh (or other IM site if unavailable) according the order table in [Appendix A](#).
 - Ensure the LHC/patient lies down. The LHC/patient should remain in a recumbent position following receipt of an EPINEPHrine injection and monitored closely.
5. For airway obstruction, perform airway positioning techniques such as head tilt, chin lift and/or jaw thrust. Secure an oral airway if necessary and the LHC/patient is unconscious (see [Appendix A](#) for order). Manage the airway including support of oxygen and ventilation.
6. Oxygen therapy as required to maintain oxygen saturation above 92%, COPD 88-92%. Apply medical mask to the LHC/patient and use non-rebreather oxygen mask.
7. As an adjunct to EPINEPHrine, a dose of antihistamine may be administered, according to the order table in [Appendix A](#), to relieve itching, flushing, urticaria, and nasal and eye symptoms.
8. Monitor vital signs every 5 minutes and reassess LHC/patient to guide medication use.
9. Arrange for rapid transport to emergency department.

Indications to the Implementation of the Directive

LHC/patient who have symptoms of anaphylaxis post the administration of COVID-19 vaccine.

See orders table in [Appendix A](#) for indications.

Contraindications to the Implementation of the Directive

This medical directive must not be implemented in the following circumstances:

- The LHC, patient, Substitute Decision Maker (SDM) and/or guardian refuses to provide verbal consent/assent,
- The LHC/patient is less than 17 years or age,
- Procedure specific contraindications in the Order Table with [Appendix A](#) .

Consent

The RHCP implementing this medical directive must obtain consent, if the LHC/patient is capable of providing it. In an emergency situation, if the patient is not capable of providing consent, the RHCP may administer treatment without consent if, in his/her opinion, all of the following are true:

- The LHC/patient is incapable with respect to the treatment;
- The LHC/patient is experiencing severe suffering or is at risk, if the treatment is not administered promptly, of suffering serious bodily harm; and
- It is not reasonably possible to obtain a consent or refusal on the patients'/LHC's behalf, or the delay required to do so will prolong the suffering that the LHC/patient is experiencing or will put the LHC/patient at risk of suffering serious bodily harm.

Documentation Requirements

The OH/RHCP will document the event and actions taken (with timelines noted as accurately as possible) on the record forms available. This information should later be documented accordingly by the OH in the LHC's OH medical file. If the LHC/patient is not an employee or privileged staff member of LH, documentation of the event should be maintained in a separate file in the Occupational Health department. All suspect and confirmed anaphylactic reactions following vaccination will be reported to Durham Public Health Department as an adverse vaccine event as per the Health Protection and Promotion Act.

Review/Evaluation Process

Occupational Health will review this medical directive every 2 years

References

Canadian Immunization Guide.

Covid-19 Vaccine Lakeridge Health Monograph.

COVID-19 Vaccine Moderna, mRNA-1273 SARS-CoV-2 vaccine. Product Monograph, Dispersion for intramuscular injection

Ministry of Health. COVID-19 Administration of Pfizer-BioNTech COVID-19 Vaccine. Version1. December 13, 2020.

PFIZER-BIONTECH COVID-19 Vaccine Product Monograph. COVID-19 mRNA Vaccine, Suspension for Intramuscular Injection.



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Government of Ontario (2017). Regulated health professions act, 1991S.O. 1992, chapter 18. Retrieved from <https://www.ontario.ca/laws/statute/91r18>

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This table must **not** be used independently apart from the Medical Directive

Appendix A: Order Table Form

Order	Indication	Contraindication	Notes (Optional)
Insert oral airway	To relieve airway obstruction in an unconscious, patient	Patient is conscious	
<p>Dosage: EPINEPHrine 0.5 mg (0.5 mL of 1 mg/mL or 1:1000 solution) IM every 5 to 15 minutes as needed, for a maximum of three doses.</p> <p>Arrange for rapid transport to emergency department.</p>	<p>Any of the following signs and symptoms in 2 or more body systems:</p> <p>Skin</p> <ul style="list-style-type: none"> itchy, urticarial rash (hive) progressive, painless swelling (angioedema) around the face and mouth, which may be preceded by itchiness, tearing, nasal congestion or facial flushing <p>Respiratory</p> <ul style="list-style-type: none"> sneezing, coughing, wheezing, laboured breathing and upper airway swelling (indicated by hoarseness and/or difficulty swallowing) possibly causing airway obstruction <p>Gastrointestinal</p> <ul style="list-style-type: none"> cramping abdominal pain, nausea, vomiting and diarrhea <p>Cardiovascular</p> <ul style="list-style-type: none"> chest pain, palpitations, tachycardia, sudden reduced blood pressure or symptoms of end-organ dysfunction (e.g. altered mental status, hypotonia, and incontinence). <p>Other</p> <ul style="list-style-type: none"> febrile (over 40 °C), convulsions/seizures 		<p>Use a different site for each dose.</p> <p>Monitor vital signs a minimum of every 5 minutes and reassess LHC to guide medication use</p> <p>For all but the mildest cases of anaphylaxis, LHCs/patients should be monitored for at least 12 hours.</p>

Appendix A: Order Table Form (cont'd)

Order	Indication	Contraindication	Notes (Optional)
LHO, LHB, LHW, LHPP Sites – Loratadine 10 mg by mouth x 1 dose	Presence of itching, flushing, urticaria, nasal symptoms or eye symptoms following the administration of EPINEPHrine for anaphylaxis	LHC/patient is not alert Hypersensitivity to these drugs or any ingredients in the formulation	
diphenhydrAMINE 50 mg intramuscularly x 1 dose	Presence of itching, flushing, urticaria, nasal symptoms or eye symptoms following the administration of EPINEPHrine for anaphylaxis when oral antihistamine is not possible	Hypersensitivity to the drug or any ingredients in the formulation	Intramuscular injection of diphenhydrAMINE is painful
Salbutamol MDI 100mcg 4-8 puffs inhaled q15 minutes up to 3 times	If on auscultation: <ul style="list-style-type: none"> • Wheezing • silent chest • crackles 	Do not administer Salbutamol if there is a documented allergy	Explained to the LHC, patient and/or SDM when possible. Position LHC/patient in Semi to High Fowlers when possible