Health Sciences Centre
Winnipeg
A Shared Health facility

PHYSICIAN'S ORDER SHEET

Children's Hospital
Anaphylaxis Standard Order Sheet

These orders are to be used as a guideline and do not replace sound clinical judgment and professional practice standards. Patient allergy and contraindications must be considered when completing these orders.

■ *Standard orders. If not in agreement with an order, cross out and initial.* ☐ *Requires a check (✓) for activation.*

A Medication Order for pediatric patients who weigh 50 kg or less must include the dosage by weight in terms of 'milligrams per kilogram per day' or 'milligrams per kilogram per dose' OR by body surface area ('milligram per square meter per dose or day'). (WRHA Medication Order Writing Standard, March 2009)

Drug Allergies ► **See Clinical Circumstances Sheet**

ORDER TRANSCRIBED AND ACTIVATED

DATE TIME

Patient's Height _____

Patient's Weight _____

R **MEDICATION ORDERS**
TO BE INITIATED OR DISCONTINUED

TEST DONE

GENERAL ORDERS

DATE TIME

_____ _____

☐ **EPINEPHrine** (1 mg/mL) _____ mg IM x one dose in anterolateral thigh (0.01 mg/kg/dose; minimum 0.1 mg/dose; maximum 0.5 mg/dose)

Inhalation therapy: for respiratory distress – does not replace need for repeat EPHINEPHrine IM dose(s)

☐ salbutamol (100 mcg/puff) 8 puffs via metered-dose inhaler/spacer, for signs of bronchospasm/wheezing

☐ salbutamol 5 mg nebulized x one dose for signs of bronchospasm/wheezing

☐ EPINEPHrine _____ mg nebulized x one dose for signs of upper airway obstruction/stridor (0.5 mg/kg/dose; maximum 5 mg/dose)

IV fluids:

☐ 0.9% NaCl _____ mL IV over _____ minutes (usual: 20 mL/kg/dose)

H-1 antihistamine: optional for pruritus

☐ cetirizine _____ mg PO x one dose (6 months – less than 2 yrs: 2.5 mg; 2 – 5 yrs: 5 mg; greater than 5 yrs: 10 mg)

☐ Other: _____

Corticosteroid: optional for associated asthma exacerbation – *see reverse*

☐ dexamethasone _____ mg PO x one dose (0.6 mg/kg/dose; maximum 10 mg/dose)

☐ dexamethasone _____ mg IV x one dose (0.6 mg/kg/dose; maximum 10 mg/dose)

☐ methylPREDNISolone _____ mg IV x one dose (2 mg/kg/dose; maximum 125 mg/dose)

☐ Other: _____

Other Medications:

_____

_____

Inclusion criteria:

See reverse for anaphylaxis diagnostic criteria

■ Place patient in supine, semi-recumbent or position of comfort; elevate extremities if hypotensive

■ Vital signs including BP Q15min x 4, then Q1H until discharge or until new vital sign order is recorded by prescriber

■ Supplemental oxygen to keep oxygen saturation greater than 92%

■ Discontinue offending allergen, if applicable

■ Reassess clinical observation at: _____

☐ Serum tryptase within 2 – 6 hrs of onset of anaphylaxis, if no clear allergen

Documentation:

■ Update allergy status in electronic patient record and Clinical Circumstances Sheet (omit if allergen not known)

■ Complete RL6 or call 204-788-8222 to report anaphylaxis due to a medication

■ Complete RL6 and Manitoba Health Report of Adverse Events Following Immunization to report anaphylaxis due to an immunization

Patient education: (video, pamphlet, face-to-face)

■ Anaphylaxis teaching

■ EPINEPHrine auto-injector teaching

Discharge considerations:

☐ EPINEPHrine auto-injector prescription

☐ EPINEPHrine auto-injectors(s) at home (or refills can be picked up at pharmacy) – appropriate strength for weight

☐ Consult to Pediatric Allergy

☐ Referral to own physician for Allergy consult

■ Respiratory, neurological and cardiovascular status stable for 4 – 8 hours after EPINEPHrine; *see reverse for considerations for shortened or extended observation and/or admission*

PHYSICIAN'S SIGNATURE _____ MD

PRINTED NAME _____ MD

GENERIC EQUIVALENT AUTHORIZED

TRANSCRIBED: REVIEWER:

☐ FAXED DATE: TIME: INITIALS:

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Clinical Criteria for Diagnosing Anaphylaxis (inclusion criteria)

Anaphylaxis is highly likely when ***either*** of the following TWO criteria is fulfilled:

Criteria ONE	Acute onset of an illness (minutes to hours) with involvement of the skin, mucosal tissue, or both (e.g. generalized hives, pruritus or flushing, swollen lips-tongue-uvula) *AND AT LEAST ONE OF THE FOLLOWING:* a. Respiratory compromise (e.g. dyspnea, wheeze-bronchospasm, stridor, hypoxemia) b. Reduced blood pressure or associated symptoms of end-organ dysfunction (e.g., hypotonia/collapse, syncope, incontinence) c. Severe gastrointestinal symptoms, especially after exposure to non-food allergen
Criteria TWO	Acute onset of hypotension or bronchospasm or laryngeal involvement (e.g., stridor, vocal changes, odynophagia) after exposure to a known or highly probable allergen for that patient (minutes to hours), even in the absence of typical skin involvement. *Adapted from: Turner PJ, Worm M, Ansotegui IJ, et al. Time to revisit the definition and clinical criteria for anaphylaxis? World Allergy Organ J. 2019;12(10):100066.*
Additional Considerations for Infants	Infants may present with irritability, lethargy or drowsiness, persistent vomiting or inconsolable crying. Persistent crying, flushing, hoarseness, choking, stridor, apnea, increased drooling, profuse vomiting, lethargy, somnolence or seizures may be nonspecific and difficult to interpret but should be considered as possible signs of anaphylaxis, particularly after ingestion of a highly allergenic food. *Adapted from: Greenhawt et al. Guiding Principles for the Recognition, Diagnosis and Management of Infants with Anaphylaxis: An Expert Panel Consensus. J Allergy Clin Immunol Pract 2019;7:1148-56.*

Corticosteroid Use in Anaphylaxis

- Never use cortisteroids as a substitute for epinephrine
- There is a lack of evidence that corticosteroids reduce severity and/or prevent biphasic reactions; therefore do not use routinely.
- Corticosteroids should be considered as an adjunct therapy in children for whom an asthma exacerbation is on the differential diagnosis. There is no clear benefit to suggest one steroid over another.

Treatment of Refractory Anaphylaxis

- Consider epinephrine IV infusion for ongoing hypotension or shock refractory to three doses of epinephrine IM and fluid resuscitation OR consider earlier if anaphylactic shock at presentation.
- Repeat epinephrine IM every 5 minutes while epinephrine infusion is being prepared, administer oxygen, maintain supine position with legs elevated, continuous cardiorespiratory monitoring
- Consult PICU
- If intubation required, anticipate difficult airway, most experienced provider should intubate.
- Consider glucagon if patient is on beta-adrenergic blocker medication
- Anticholinergic agents (i.e. atropine and/or ipratropium) may also be required in beta-blocked patients for persistent bradycardia or epinephrine-resistant bronchospasm

Considerations for Discharge Home

- Patients with anaphylaxis to a known trigger with timely epinephrine administration and rapid resolution of symptoms, who are asymptomatic after one dose of epinephrine, may not require four hours of observation
- Extended monitoring in ED and/or admission should be considered for a variety of reasons, such as: severe symptoms at presentation, multiple doses of epinephrine required, delay in epinephrine administration, accompanying cardiac and/or respiratory distress, shock, anaphylaxis to unknown trigger, drug-induced anaphylaxis, patients who live alone or far from emergency care, or who do not have access to an epinephrine auto-injector
- A prescription for two epinephrine auto-injectors should be considered for patients with co-existing mast cell disease or asthma and a food allergy, or patients who do not have rapid access to medical care, or patients with a history of severe anaphylaxis or previously required more than one dose of epinephrine, or any patient/caregiver who requests two auto-injectors.