

**SAGINAW VALLEY
MEDICAL CONTROL AUTHORITY
PRACTICE PARAMETER**

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ALLERGIC REACTION/ANAPHYLAXIS

I. Assessment Information

A. Specific Objective Findings

1. Respirations: respiratory distress, wheezing, stridor and retractions.
2. Swelling: facial, tongue, upper airway
3. Vital signs: hypotension, tachycardia
4. Skin: itching, hives, swelling, flushing, rash
5. General: nausea, weakness
6. Medications

FIRST RESPONDER

II. Management

A. ABC's, Oxygen @ 15 lpm via non-rebreather mask or BVM.¹

B. Hx, IPS²

C. Obtain vital signs (blood pressure, pulse and respiratory rate).

D. Arrange for ALS intercept, if not already accomplished by MedCom.

BASIC LIFE SUPPORT

E. Initiate transport toward ALS intercept, if transporting unit.

F. A patient may be treated immediately if the following conditions are met.³

1. Stated age ≥ 2 and ≤ 45
2. No known history of cardiovascular disease
3. Severe anaphylaxis reaction with impending loss of airway as evidenced by any of the following:
 - a. Severe respiratory distress (severe wheezing, poor or ineffective air movement, stridor, grunting)
 - b. Cyanosis
 - c. Unconsciousness

G. If indicated, administer **EPINEPHRINE auto-injector (Epi-Pen®)** 0.3mg SQ/IM in patients weighing >40kg and between the age of **13 to 45**. **Epi-Pen Jr.** (0.15mg) is used for patients from age 2 to 12, and weighing at least 10 kg.⁴

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CONTACT MEDICAL CONTROL

- H. Notify physician if epinephrine has already been administered. If approved and indicated administer EPINEPHRINE auto-injector (Epi-Pen®) 0.3mg SQ/IM in patients weighing >40kg and between the age of 12 to 70. Epi-Pen Jr. (0.15mg) is used for patients from age 2 to 12, and weighing at least 10 kg.⁴

ADVANCED LIFE SUPPORT

- I. Consider early intubation before laryngeal swelling becomes severe.
- J. Monitor EKG
- K. IV NORMAL SALINE @ TKO
- L. Mild Reaction⁴
1. Administer **DIPHENHYDRAMINE (BENADRYL)** 50mg IV or IM.
- M. Moderate Reaction⁵
1. Administer **EPINEPHRINE** 0.3mg(0.3ml) 1:1000 SQ.
CAUTION: Give only if patient is less than 45 yrs old.
 2. If rash and wheezing develops, administer **ALBUTEROL (PROVENTIL)** 2.5mg, prediluted in 3cc solution via nebulizer.
 3. **METHYLPREDISOLONE** 125mg IV

NOTIFY RECEIVING FACILITY

- N. Severe Reaction⁶
1. If patient is hypotensive, **IV NORMAL SALINE** 500cc bolus and 250cc/hr titrating to signs of adequate perfusion.⁷
 2. If rash and wheezing persists, administer **EPINEPHRINE** 0.3mg 1:1000 SQ 0.3cc.
 3. If rash and wheezing persists, administer **DIPHENHYDRAMINE (BENADRYL)** 50mg IVP over 1 minute.
 4. If rash and wheezing persists, administer **ALBUTEROL (PROVENTIL)** 2.5mg, prediluted in 3cc solution via nebulizer.

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5. Additional orders post radio contact:
- a. Consider additional doses of **BENADRYL** 25-50mg IV or IM.
 - b. **EPINEPHRINE** 0.1mg increments of 1:10000 IVP⁸, until a systolic BP >90mm Hg or a total of 0.5mg is given.
 - c. **METHYLPREDISOLONE** 125mg IV
 - d. Consider **DOPAMINE** (2-10 mcg/min to maintain BP 90-100 mmHg), 400mg in 250cc of D5W = 1600mcg/cc.

¹ Sit patient in upright position, if not hypotensive.

² Determine substance or source of exposure; remove patient from source if known.

³ An EMT-B who utilizes an epinephrine auto-injector prior to contacting medical control will perform the following:

a. Page the SVMCA Medical Director within one (1) hour of completion of the call

b. Submit a copy of the Run Sheet and Pharmacy log to the SVMCA office within one business day.

⁴ The Epinephrine auto-injector is commonly prescribed for individuals who are anaphylactic – that is, who have had prior severe allergic reactions or those who may be at high risk, i.e. family history of severe reactions or a highly allergic individual. Indications to use epinephrine auto-injector include one or more of the following: hives, swelling (especially of lips and face), difficulty breathing, vomiting, diarrhea, cramping and a fall in blood pressure. Injection is to be done at the anterolateral portion of the thigh.

⁵ Mild Reaction – Welts and Rash only

⁶ Moderate Reaction – Rash and Wheezing

⁷ Severe Reaction – includes the following symptoms: Respiratory distress, wheezing, stridor, cyanosis, upper airway edema or signs of cardiovascular collapse (i.e.: hypotension, pallor, diaphoresis, thready pulse, etc.).

⁸ Patient should have large bore catheter.

⁹ Should be given slow IVP. Given for profound anaphylactic shock (near cardiac arrest) with laryngeal edema.

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Medical Director

EMS Manager