

# Model Plan: Administration of Epinephrine and Benadryl

# NOTE:

The signs and symptoms of anaphylactic shock are: hypotension, respiratory distress such as laryngeal edema, dyspnea, wheezing, a sense of retrosternal pressure or tightness, rapid and/or irregular pulse, urticarial, loss of consciousness, agitation, faintness, burning and/or itching eyes, tearing, congestion and itching nose, rhinitis, nausea, vomiting, abdominal pain, diarrhea, flushed skin, general itching, non-pruritic swelling of extremities as well as the face and perioral or periorbital regions, and/or a sense of uneasiness.

- After an injection of medication and/or vaccine it is determined that the individual has symptoms categorized as mild, the client may only require close monitoring on site with notice to their health care provider.
- Using clinical judgment, when the individual's symptoms progress to those of anaphylactic shock, School Vaccine Providers shall initiate the emergency procedure for the administration of Epinephrine and Benadryl.

# **Special Instructions:**

- 1. Equipment needed includes:
  - Ampules of Epinephrine (adrenaline) 1:1000 (or epinephrine auto-injectors)
  - Diphenhydramine (Benadryl) oral (12.5 mg/5 mL suspension) and 25 or 50 mg capsules or tablets
  - 4 TB syringes
  - (2) 3cc syringes (w/needle-22-25ga, 1-1.5" length)
  - Alcohol Swabs
  - Blood pressure cuff and stethoscope
  - CPR mask

- 2. All School Vaccine Providers are required to be trained in Health Care Provider cardiopulmonary resuscitation (CPR).
- 3. In the event of a medical emergency during a clinic session, school vaccine providers shall activate emergency medical services and notify the responsible health care provider and/or call an ambulance or other local emergency medical services.
- 4. School vaccine provider staff shall initiate CPR if the situation warrants it, unless there is a "Do Not Resuscitate" order in place. The school disclaims any liability for misapplication of this knowledge by the School Vaccine Provider.

### In an emergency:

- 1. Call for assistance
- 2. Notify local emergency medical services
- 3. Establish and maintain an airway

# To administer Epinephrine and Benadryl, follow the steps below:

### 1. Administer Epinephrine (per dosage chart/guidelines)

- A. Using tuberculin (1cc)-syringe draw up only the amount of Epinephrine needed, based on the weight of the child or the dosage amount for an adult, or use epinephrine autoinjector.
- B. Administer the Epinephrine subcutaneously. NOTE: <u>DO NOT GIVE</u> if symptoms of angina are present.

#### Epinephrine Dosage Guidelines: \*

Epinephrine (Adrenaline Chloride) 1:1000

0.1cc for children < 20 lbs. (0-12 months of age)

0.2cc for children 20 – 45 lbs. (1-4 years old)

0.3cc for children > 45 lbs. (> 4 years of age)

0.3cc for adults

C. Guidelines for Epinephrine autoinjectors, see dosage and images below.

# Epinephrine Autoinjector Dosage Guidelines: \*

0.15 mg (junior dose) indicated for child under 66 pounds

0.3 mg (adult dose) indicated for over 66 pounds.

# HOW TO USE AUVI-Q® (EPINEPRHINE INJECTION, USP), KALEO

- 1. Remove Auvi-Q from the outer case.
- 2. Pull off red safety guard.
- 3. Place black end of Auvi-Q against the middle of the outer thigh.
- 4. Press firmly until you hear a click and hiss sound, and hold in place for 2 seconds.
- 5. Call 911 and get emergency medical help right away.

# HOW TO USE EPIPEN® AND EPIPEN JR® (EPINEPHRINE) AUTO-INJECTOR AND EPINEPHRINE INJECTION (AUTHORIZED GENERIC OF EPIPEN®), USP AUTO-INJECTOR, MYLAN AUTO-INJECTOR, MYLAN

3

3

- 1. Remove the EpiPen® or EpiPen Jr® Auto-Injector from the clear carrier tube.
- 2. Grasp the auto-injector in your fist with the orange tip (needle end) pointing downward.
- 3. With your other hand, remove the blue safety release by pulling straight up.
- 4. Swing and push the auto-injector firmly into the middle of the outer thigh until it 'clicks'.
- 5. Hold firmly in place for 3 seconds (count slowly 1, 2, 3).
- 6. Remove and massage the injection area for 10 seconds.
- 7. Call 911 and get emergency medical help right away.

# HOW TO USE IMPAX EPINEPHRINE INJECTION (AUTHORIZED GENERIC OF ADRENACLICK<sup>®</sup>), USP AUTO-INJECTOR, IMPAX LABORATORIES

- 1. Remove epinephrine auto-injector from its protective carrying case.
- 2. Pull off both blue end caps: you will now see a red tip.
- 3. Grasp the auto-injector in your fist with the red tip pointing downward.
- 4. Put the red tip against the middle of the outer thigh at a 90-degree angle, perpendicular to the thigh.
- 5. Press down hard and hold firmly against the thigh for approximately 10 seconds.
- 6. Remove and massage the area for 10 seconds.
- 7. Call 911 and get emergency medical help right away.

# ADMINISTRATION AND SAFETY INFORMATION FOR ALL AUTO-INJECTORS:

- 1. Do not put your thumb, fingers or hand over the tip of the auto-injector or inject into any body part other than mid-outer thigh. In case of accidental injection, go immediately to the nearest emergency room.
- 2. If administering to a young child, hold their leg firmly in place before and during injection to prevent injuries.
- 3. Epinephrine can be injected through clothing if needed.
- 4. Call 911 immediately after injection.

First-line treatment: Epinephrine is the first-line treatment for anaphylaxis, and there is no known equivalent substitute.

**Optional treatment:**  $H_1$  **antihistamines** relieve itching and urticaria (hives). These medications <u>**DO NOT**</u> relieve upper or lower airway obstruction, hypotension, or shock. Consider giving diphenhydramine (e.g., Benadryl) for relief of itching and hives. Administer orally 1–2 mg/kg every 4–6 hours, up to a maximum single dose of 100 mg.

<sup>\*</sup>American Academy of Pediatrics, Abbott Laboratories, American Hospital Formulary Service, Mosby's Nursing Drug Reference

<sup>\*\*</sup>Nursing 2006 Handbook, 26<sup>th</sup> edition. New York: Lippincott Williams & Wilkins.

<sup>\*\*\*</sup>Nelson's Textbook of Pediatrics, 15<sup>th</sup> edition. Philadelphia: Saunders