

Allergy and Anaphylaxis Management

30 minute training
with post-test

Overview

- ❖ **Definitions**
 - ❖ **Standing Orders**
 - ❖ **Collaborative Practice Agreement**
- ❖ **Causes of Anaphylaxis**
- ❖ **Prevention**
- ❖ **Signs, Symptoms and Treatments**
- ❖ **Confidentiality and Rights**
- ❖ **Practice**
- ❖ **Storage and Reporting**

Allergy Management Pre-Test

Try this Pre-Test and compare your answers to your Post-test responses!

True / False Questions:

1. T/F Anaphylaxis is a life threatening emergency.
2. T/F Allergy symptoms can worsen suddenly.
3. T/F Only people with known allergies can develop anaphylaxis.
4. T/F Anaphylaxis may be caused by insect bites or stings, foods, medications or contact with latex or other substances.
5. T/F The recommended injection site for epinephrine auto injector is the outer mid-thigh muscle.
6. T/F When a student having an anaphylactic reaction and epinephrine is given, it is not necessary to call 911.
7. T/F The epinephrine auto injector must be held firmly in the thigh muscle for at least 10 seconds after injection.
8. T/F Students with known life-threatening allergies will have an Individualized Allergy Emergency Care Plan for staff to follow.

Definitions

- ❖ **Allergy** - an immune response to a foreign antigen resulting in inflammation and organ dysfunction.
- ❖ **Allergic Reaction** - a reaction of the immune system to a specific protein as a problem and initiates a response resulting in the release of chemical mediators such as histamine.
- ❖ **Anaphylaxis** - a life-threatening, often rapidly progressing type of allergic reaction. Anaphylactic reactions usually begin within minutes of exposure to allergen.

Standing Orders

(written by MSAD #72's School Nurse; reviewed and signed by MSAD #72's School Physician)

Definition: “..are intended to cover those individuals who are not yet identified as known reactors and, for that reason, do not have their own emergency medication and individualized medical order in place.” *Legal Issues in School Health Services*

Schwab and Gelfman, 2005 p. 211

MSAD #72 Epi Pen Standing Orders

- ❖ Epi Pen Administration
- ❖ for Individual with unknown life threatening allergy or a student with a known life threatening allergy that has not brought their prescribed Epi Pen into school that presents with an anaphylactic reaction:
- ❖
- ❖ 1. The requirements in accordance with the provisions of Section 1.20A MRSA §6305 of the Maine Statutes will be satisfied by MSAD #72.
- ❖ 2. In the event that an individual presents with a sudden onset of any of the following signs and symptoms of an anaphylactic reaction:
 - ❖ -Feeling of fullness/tightness in throat; hoarse voice; trouble breathing/swallowing
 - ❖ -Respiratory difficulty; short of breath; wheezing; repetitive cough
 - ❖ -Tingling sensation/swelling around mouth, lips & face, nasal congestion, itching,
 - ❖ -Many hives over body with breathing difficulties; widespread redness
 - ❖ -Severe stomach pain; repetitive vomiting; severe diarrhea
 - ❖ -Confusion, anxiety, feeling faint
 - ❖ -Loss of consciousness, shock, coma

MSAD #72 Epi Pen Standing Orders (cont.)



The first available trained school staff member will administer epinephrine auto injector- .3mg (over 66 pounds) or epinephrine auto injector-.15mg (under 66 pounds).

The district Emergency Plan will be followed along with the completion of the required reporting forms.

For milder local allergic reactions such as hives without breathing difficulties, administer Benadryl 25 mg by mouth; call school nurse, monitor individual; proceed with Epi Pen if above anaphylactic symptoms present.

Collaborative Practice Agreement

❖ 6305.1 Definitions.

A. "Collaborative practice agreement" means a written and signed agreement between a physician licensed to practice in the state of Maine or a school health advisor under Sec. 6402-A and a school nurse under Sec. 6403-A that provides for the prescription of epinephrine autoinjectors by the physician or school health advisor and administration of the epinephrine autoinjectors by a school nurse or designated school personnel to students during school or a school-sponsored activity under emergency circumstances involving anaphylaxis.

Citation: <http://legislature.maine.gov/ros/LawsOfMaine/#Statutes/20-A/title20-Asec6305>

Collaborative Practice Agreement (Cont.)

- ❖ B. %Designated School Personnel+means those employees, agents or volunteers of a school administrative unit or an approved private school designated by a collaborative practice agreement between a physician licensed in this State or a school health advisor under section 6402-A and a school nurse under section 6403-A who have completed the training required by rule to provide or administer an epinephrine autoinjector to a student.
- ❖ C. %Epinephrine autoinjector+means a device that automatically injects a premeasured dose of epinephrine.
- ❖ D. %School+means a public or approved private school.

Citation: <http://legislature.maine.gov/ros/LawsOfMaine/#Statutes/20-A/title20-Asec6305>

Collaborative Practice Agreement (cont.)

- ❖ Must include:
 - ❖ Name and physical address of the school
 - ❖ Identification and signatures of the physician or school health advisor under section 6402-A and school nurse under section 6403-A
 - ❖ Dates the agreement is signed by each party
 - ❖ Beginning and end dates of the period of time within which the agreement is in effect
 - ❖ Any other information considered appropriate by the physician or school health advisory under section 6402-A and school nurse under section 6403-A

Citation: <http://legislature.maine.gov/ros/LawsOfMaine/#Statutes/20-A/title20-Asec6305>

MSAD #72 Collaborative Agreement

- ❖ **Epinephrine Auto injector Collaborative Practice Agreement**
- ❖ This Collaborative Practice Agreement is in accordance with the provisions of Section 1. 20A MRSA §6305 of the Maine Statutes.
- ❖ This is a written and signed agreement between a physician licensed in the state of Maine or a School Health Advisor under section §6402-A* and a school nurse under section §6403-A**.
- ❖ **School District:** _____
- ❖ **School District Address:** _____
- ❖ _____
- ❖ _____
- ❖ _____
- ❖ This Collaborative Practice Agreement is between _____
- ❖ SAU Unit
- ❖ and _____.
- ❖ School Physician/School Health Advisor
- ❖ _____
- ❖ Dates of Collaborative Practice Agreement is in effect from _____
- ❖ First Day of School Year
- ❖ to _____.
- ❖ Last day of School Year
- ❖ **Services to be provided:**
- ❖ The prescription of epinephrine auto injectors by the physician or school health advisor and administration of epinephrine auto injectors by a school nurse or designated school personnel to students during school or a school-sponsored activity under emergency circumstances involving anaphylaxis.
- ❖ School Nurse: _____
- ❖ Printed Name
- ❖ _____
- ❖ Signature
- ❖ School Physician: _____
- ❖ Printed Name
- ❖ _____
- ❖ Signature
- ❖ _____
- ❖ ***§6402-A Maine State Law: School Health Advisor**
- ❖ Each school board shall appoint one or more physicians or family nurse practitioner or pediatric nurse practitioner to act as school health advisor annually.
- ❖ ****§6403-A Maine State Law: School Nurse**
- ❖ Each school board shall appoint at least 1 registered professional nurse for the school administrative unit.

Causes of Anaphylaxis

Anaphylaxis can be triggered by:

- ❖ Foods (peanuts, tree nuts, eggs, wheat, milk, fish, shellfish, soy)
- ❖ Insect stings (bee, wasp)
- ❖ Medications
- ❖ Latex from natural rubber (gloves, balloons, bananas, tomatoes, carrots, sports equipment, etc.)
- ❖ Arts and craft materials may contain trace amounts of food allergens



2/14/2017



Anaphylaxis



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8 Major Food Allergens

- ❖ Milk
- ❖ Eggs
- ❖ Peanuts
- ❖ Tree nuts
- ❖ Fin Fish (bass, cod, flounder, etc.)
- ❖ Shellfish (crab, lobster, shrimp, etc.)
- ❖ Soy
- ❖ Wheat



Facts About Allergens

- ❖ It must be understood that in a school setting it is not possible to have a completely allergen free environment
- ❖ Staff, parents, and students should not have a false sense of security that an allergen has been completely eliminated from school
- ❖ MSAD #72 has developed protocols to prevent exposure to allergens

Prevention

Steps to prevention:

- ❖ Avoid exposure to known allergen
- ❖ Allergy and anaphylaxis training must be provided to school personnel

School may stock life saving medication as allowed by Maine State Law

<http://legislature.maine.gov/ros/LawsOfMaine/#Statutes/20-A/title20-Asec6305>



Anaphylaxis

Prevention

- ❖ Encourage and support students to advocate for themselves
- ❖ Work with the school nurse to identify who is at risk
- ❖ Educate students, colleagues, and parents about the risk of food anaphylaxis
- ❖ Epinephrine must accompany students with known allergies on off-campus events



Anaphylaxis

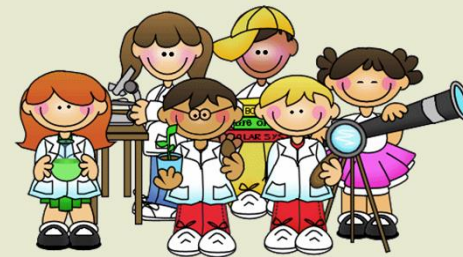
Prevention: Cafeteria

- ❖ Cleaning solution will be used to clean allergy safe tables/surfaces
- ❖ Students may access an allergy safe table in the cafeteria
- ❖ Sharing, touching or trading food should be prohibited
- ❖ Students should be instructed to use proper hand washing techniques using soap and water
- ❖ Carefully read all food labels, even if they are known foods
- ❖ Cross contamination: Food handlers should use separate utensils for food preparation and serving



Prevention: Classroom Food

- ❖ Parents should be notified that there are one or more students with life-threatening food allergies in the class/school and identify the restrictions in bringing certain foods to the school including lunches, parties and snacks
- ❖ Students should be instructed to use proper hand washing techniques using soap and water
- ❖ Carefully read all food labels
- ❖ Sharing, touching or trading food should be prohibited
- ❖ Cross contamination - prep areas, serving utensils, and containers



Prevention: Classroom Insects

Practical strategies to avoid Insect exposure

- ❖ If there is a bee/wasp in the classroom, have student with stinging insect allergy leave the room until the insect is removed
- ❖ Notify custodial staff and office immediately if you notice a nest or presence of bees/wasps
- ❖ The environment should be checked on a regularly scheduled basis to look for evidence of ground wasps and dealt with by facilities staff
- ❖ The bus should be checked for evidence of bee/wasp presence before an allergic student gains access



Prevention: Field Trip

- ❖ Clearly label the location of the epinephrine in the emergency pack carried by designated staff
- ❖ Designate a trained staff person to be responsible for the administration of epinephrine and implement the emergency response plan if indicated
- ❖ Provide school personnel with the information about the student's allergy management plan and any necessary precautions
- ❖ Bus drivers must have a method of communication for the emergency calls
- ❖ Allergy Emergency Care Plan and emergency medication should be packaged for all students with known allergy
- ❖ Hand wipes should be available for hygiene use before and after eating. Note: wipes are not effective in removing some allergens



Allergy Emergency Care Plan

(Prescribing physicians for students with known allergies should provide this; if not, parents should develop plan with school nurse & school personnel)

- ❖ Action plans are specific to the individual student
- ❖ Plan should be shared with school staff responsible for care
- ❖ Information is **CONFIDENTIAL**
- ❖ Everyone should know where medication is and **HOW TO REACT**

FARE, 2014

<http://www.maine.gov/education/sh/contents/foodallergyactionplan2012.pdf>

Anaphylaxis

Life-Threatening Reaction (Anaphylaxis)

- ❑ Usually comes on suddenly
- ❑ Difficulty breathing or feeling faint
- ❑ Often multiple body systems involved
- ❑ Treatment = **Epinephrine NOW and call 911**

NASN, 2015, Get Trained.

Signs and Symptoms

Anaphylaxis is ANY systemic reaction to an allergen

HEART: Pale, blue, faint, weak pulse, dizzy

MOUTH: Significant swelling of the tongue and/or lips

LUNG: Short of breath, wheezing, repetitive cough

SKIN: Many hives over body, widespread redness

Signs and Symptoms

Anaphylaxis is ANY systemic reaction to an allergen

GUT: Repetitive vomiting, severe diarrhea

THROAT: Tight, hoarse, trouble breathing/swallowing

OTHER: Feeling something bad is about to happen, anxiety, confusion

May be a COMBINATION of symptoms from different body areas

Local reactions occur at insult site only



Signs and Symptoms

Hives

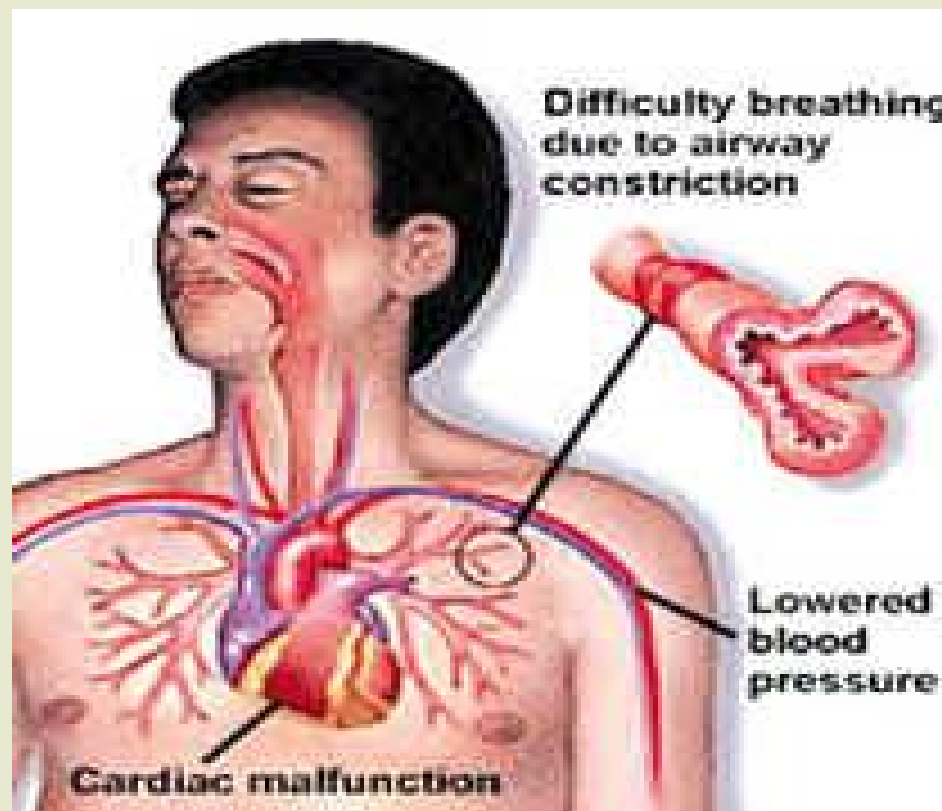


Signs and Symptoms

- ❖ Tight throat, swollen lips, hives, severe stomach pain



Signs and Symptoms Physiology



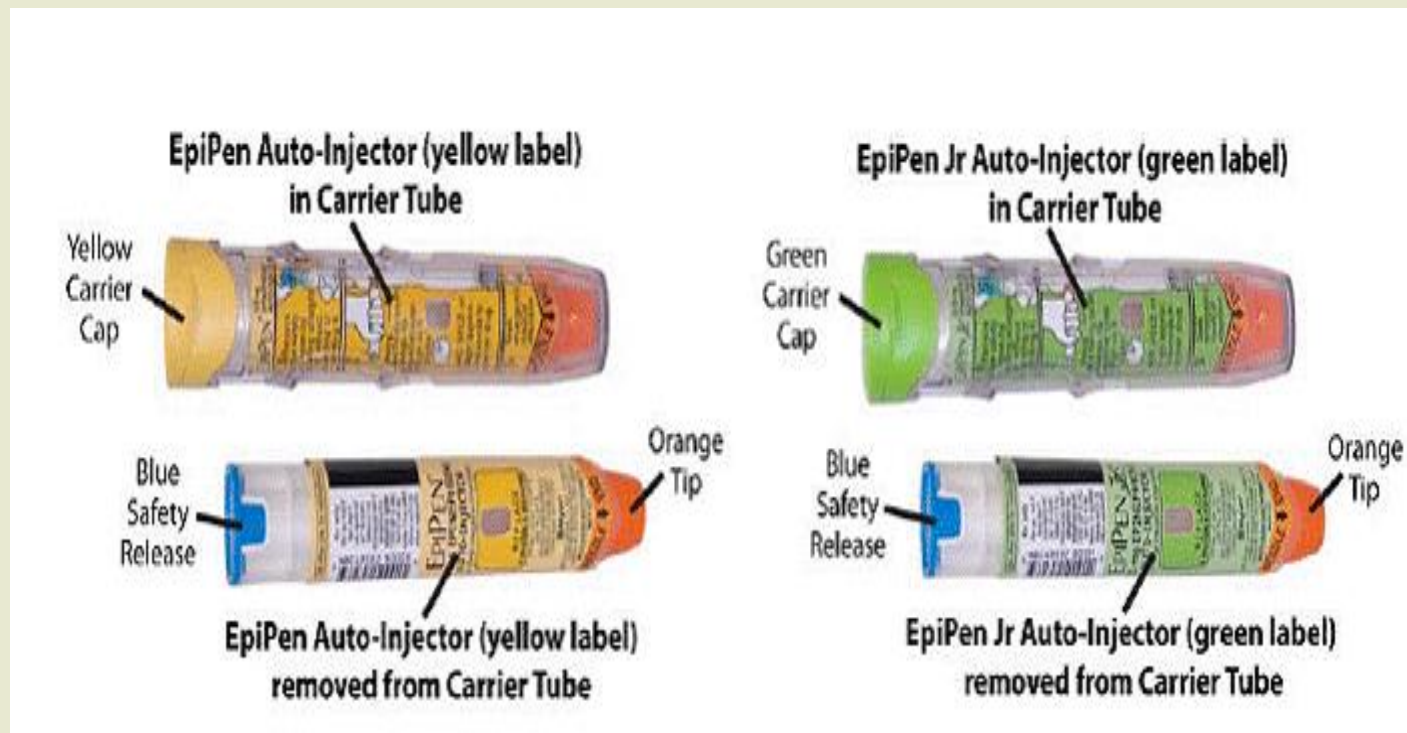
Treatment

- ❖ INJECT EPINEPHRINE AUTO-INJECTOR **IMMEDIATELY**
- ❖ Epinephrine 0.15mg (under 66 pounds)-0.3 mg auto-injector (over 66 pounds)- up to 2 shots 5 minutes apart.
- ❖ Send the used epinephrine pen with the student to the ER

CALL 911

Autoinjector Practice

Pictures of Adult (yellow) and Child (green) injectors



NOTE: Safety caps are **BLUE**

Steps to Administer an Epi Pen

EPIPEN 0.3 mg EPINEPHRINE AUTO-INJECTOR

See other side for instructions

Rx only
After use, most of liquid stays in auto-injector and can't be reused.
Delivers 0.3 mg intramuscular dose of epinephrine from epinephrine injection 1:1000 USP (0.3 mL).
Each 0.3 mL also contains 1.8 mg sodium chloride and 0.5 mg sodium metabisulfite.

1 Pull off blue safety release.

2 Swing and firmly push orange tip against outer thigh so it clicks
AND HOLD on thigh approx. 10 seconds to deliver drug.

3 Seek emergency medical attention.

EPIPEN 0.3 mg EPINEPHRINE AUTO-INJECTOR
for Allergic Emergencies (Anaphylaxis)

REPLACE
IF SOLUTION IS DISCOLORED

STORE AT 25°C (77°F); EXCURSIONS PERMITTED TO 15-30°C (59-86°F)
DO NOT REFRIGERATE, PROTECT FROM LIGHT, CONTAINS NO LATEX.

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by Meridian Medical Technologies, Inc.,
Columbia, MD 21046 USA
A subsidiary of King Pharmaceuticals, Inc.
© 2007 by Meridian Medical Technologies, Inc.
Made in U.S.A.

NEEDLE ↓ END **NEEDLE ↓ END**

Epinephrine Storage

- ❖ Epinephrine autoinjectors will be stored in a secure safe location
- ❖ Autoinjectors should be readily available when needed
- ❖ Storage of autoinjectors should ideally be stored out of direct sunlight, at room temperature between **68°F-77°F**
- ❖ **Do not leave in cars, on buses, in snow bank, on the beach, or in direct sunlight**

Incident Reporting

- ❖ Complete the district Emergency Reporting Form for the School Nurse and the Epi Pen Reporting Form for the Maine DOE
- ❖ A debriefing with staff after an administration of epinephrine is always helpful

<http://www.maine.gov/education/sh/contents/index.html>

Allergy Management Post-Test (also attached)
Please print, complete and send this Post-Test to the School Nurse
Your name will be placed on the district Epi Pen Trained List

Name: _____ School: _____ Date: _____

True / False Questions:

1. T/F Anaphylaxis is a life threatening emergency.
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8. T/F Students with known life-threatening allergies will have an Individualized Allergy Emergency Care Plan for staff to follow.

Anaphylaxis Training

Any Questions??



Contact the District School Nurse

Contact information: Nancy Boucher RN, BSN

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