Get Trained 2016 Updates

Information in this presentation was reviewed and updated in August 2016 by:

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It's time for all school staff to
GET TRAINED
to administer an epinephrine auto-injector
in an emergency!
What Would You Do?
- Bianca has a bee sting allergy
- Her class is on a field trip
- She tells the teacher that she was stung –
  - The teacher sees that she is pale and can hear that she is wheezing
  - Her tongue starts to swell, she gasps for air
- Bianca is experiencing anaphylaxis

You have moments to react
- Bianca is having a life-threatening allergic reaction
- Without prompt treatment with a drug called epinephrine, Bianca could die within minutes
- Do you know what to do?
- Do you know how to give epinephrine?

BE EMPOWERED TO SAVE
A LIFE -
Objectives

- Learn the signs and symptoms of anaphylaxis
- Have the skills to administer an epinephrine auto-injector
- Review the use of an Emergency Care Plan in responding to a student health emergency

Learn to save the life of a child like Bianca!

What is an allergic reaction?

- An allergy occurs when the immune system mistakenly attacks a food protein or normally harmless substance—it perceives the food or substance as a harmful or foreign one
- Exposure to the offending food or allergen may trigger the sudden release of chemicals, including histamine, resulting in symptoms of an allergic reaction
- The symptoms may be mild or severe—may progress over minutes or hours
Allergic Reactions

- Common things people are allergic to (allergens) include:
  - Bee stings
  - Latex
  - Food Allergies - most common allergens:

<table>
<thead>
<tr>
<th>Peanut</th>
<th>Tree nuts (walnuts, cashews, pecans, etc.)</th>
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<tbody>
<tr>
<td>Milk</td>
<td>Egg</td>
</tr>
<tr>
<td>Wheat</td>
<td>Soy</td>
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<tr>
<td>Fish</td>
<td>Shellfish</td>
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Allergic Reactions

<table>
<thead>
<tr>
<th>Mild</th>
<th>Life-Threatening (Anaphylaxis)</th>
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<tbody>
<tr>
<td>- Usually only mild skin symptoms</td>
<td></td>
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<tr>
<td>- Don’t tend to have trouble breathing</td>
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<tr>
<td>- May be treated with antihistamines</td>
<td>- Difficulty breathing or feeling faint</td>
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<tr>
<td></td>
<td>- Often multiple body systems involved</td>
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<td></td>
<td>- Treatment = Epinephrine NOW</td>
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Important to make the distinction based on the signs and symptoms seen in a student!

Anaphylaxis ("an-a-fi-LAK-sis")

- Anaphylaxis is a severe allergic reaction that can be life-threatening in a matter of minutes
- Almost always unanticipated
- It must be treated immediately
- The drug of choice is epinephrine
- The time to learn how to give life-saving medication is NOW—it needs to be given without delay

It’s time to GET TRAINED!
**Allergic Management**

- Preventing an exposure is key
- For students with a diagnosed allergy:
  - **Know who can help!**
    - Talk to your school nurse or healthcare coordinator
  - **Know how to react!**
    - Know the signs and symptoms of anaphylaxis
    - Learn about the student’s Action / Emergency Care Plan
    - Know where your student’s medication is and how to help in an emergency
- **IF A CHILD IS HAVING A FIRST TIME REACTION AND DOESN’T HAVE A PLAN – DON’T DELAY USING EPINEPHRINE IF NEEDED**

*Robinson & Roca, 2013*

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**Allergy Management**

- Collaboration is vital – everyone should be aware of students with allergies
  - Classroom Teachers
  - School Administration
  - Special Area Teachers
  - Food Service
  - Student Instructional
  - Facilities and Maintenance
  - Support Personnel
  - Staff
  - Transportation Staff
  - Everyone!

- Must be willing to work as a team to keep these students safe
  - A Coordinated Approach / Effective Partnerships

*CDC, 2013*

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**Severity Scale**

- **Mild**
- **Severe**

*Get Trained*
What does it look like?

Mild Allergic Reaction:
- **MOUTH:** Itchy mouth
- **SKIN:** A few hives around mouth/face, mild itch
- **ABDOMINAL AREA/ STOMACH:** Mild nausea/discomfort

What does it look like?

**Anaphylaxis:** Any **SEVERE SYMPTOMS** after suspected or known ingestion or exposure:
- **One or more** of the following:
  - **LUNG:** Short of breath, wheezing, repetitive cough
  - **HEART:** Pale, blue, faint, weak pulse, dizzy, confused
  - **THROAT:** Tight, hoarse, trouble breathing/swallowing
  - **MOUTH:** Obstructive swelling (tongue and/or lips)
  - **SKIN:** Many hives over body

What does it look like?

**Anaphylaxis:** Any **SEVERE SYMPTOMS** after suspected or known ingestion or exposure:
- **Or combination** of symptoms from different body areas:
  - **SKIN:** Hives, itchy rashes, swelling (e.g., eyes, lips)
  - **ABDOMINAL AREA/ STOMACH:** Vomiting, diarrhea, crampy pain
  - **HEENT:** Runny nose, sneezing, swollen eyes, phlegmy throat
  - **OTHER:** Confusion, agitation, feeling of impending doom
How will I know what to do?

- School Nurse will develop an Emergency Care Plan for students with a diagnosed allergy.
- Includes steps to follow.
- Should be reviewed regularly.
  - Includes information from the healthcare provider/allergist.
  - Use school protocol if available.
- Ask: Are signs and symptoms of possible anaphylaxis present and was there an exposure to a possible trigger?
- Be prepared to act!

Allergy Action/Emergency Care Plan

- Individual – specific to the student.
- Plan should be shared with school staff responsible for care.
- Information should be treated with care.
- Everyone should know where medication is and HOW TO REACT.

Know what to do! Act Quickly!
Epinephrine

- Epinephrine is the first line treatment for anaphylaxis
- Should be administered IMMEDIATELY
- Some protocols call for epinephrine to be administered with or without symptoms
- Parents & school administrators should not be concerned about adverse health effects of epinephrine – it has an impressive safety profile
- If in doubt – give the epinephrine
- Adverse effects for average healthy child not harmful – anxiety, palpitations

A delay in treatment can have devastating results
Schoenfelder & White, 2013
Roberson & Force, 2011
Sachar & Sirmans, 2007

Epinephrine Auto-Injectors

- Epinephrine Auto-Injectors are easy to use
- Come with instructions
  - Trainers available for practice use
- Websites have video demonstrations – know how to administer your student’s auto-injector!

<table>
<thead>
<tr>
<th>Epi-Pen® video</th>
<th><a href="http://www.epipen.com/products/about-how-to-use-epipen/">http://www.epipen.com/products/about-how-to-use-epipen/</a></th>
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Note: All Auvi Q epinephrine injectors with expiration dates October 2015 – December 2016 were recalled from the market.

General Auto-injector Instructions

- GET SPECIFIC DEMONSTRATION/TRAINING FROM YOUR SCHOOL NURSE
  - It is preferable to use training device from student’s brand of epinephrine auto-injector
- Determine that the student requires epinephrine – use protocol or identify symptoms
- Call 911 – have someone call EMS while you administer epinephrine
- Check medication expiration date

MAE, 2014
General Auto-injector Instructions

1. Remove safety cap from auto-injector
2. Place auto-injector against outer thigh
3. Push auto-injector firmly against thigh until auto-injector activates
   - For small children, hold thigh firmly in place before reinserting
4. Hold firmly in place and check device for the auto-injector for height and time to hold 5 seconds or 30 seconds.
5. Monitor site for 30 seconds
6. Keep device upright to EMS

Steps to Follow in an Emergency

1. Follow the building emergency response plan/protocol and:
2. IMMEDIATELY ADMINISTER EPINEPHRINE AUTOINJECTOR PER STANDING ORDER:
   - 0.15 mg of epinephrine for otherwise healthy young children weighing 10 to 25 kg (22 - 55 lbs.)
   - 0.30 mg of epinephrine for those weighing 25 kg (55 lbs.) or more
   - Schering, Scott N. and Sinno, Carole B., 2007
   - Inject into middle outer side of upper leg, note time and site of injection (can be given through clothing)
   - Stay with student and monitor closely
3. Designate a person to call Emergency Medical System (911) and request ambulance with epinephrine

Steps to Follow in an Emergency

3. Designate a person to notify, school administration, school nurse and student's emergency contact(s)
   - Stay with and observe student until EMS (ambulance) arrives.
   - Maintain airway, monitor circulation, start CPR as necessary.
   - Do not have the student rise to an upright position.
   - Consider lying on the back with legs elevated position, but alternative positioning is needed for vomiting (side lying, head to side) or difficulty breathing (sitting).
   - Observe for changes until EMS arrives.

NAPOL, 2014
**Steps to Follow in an Emergency**

- If no improvement or if symptoms worsen in about 5-15 minutes, **(NIAID-Sponsored Expert Panel, 2013)**
  - Administer a second epinephrine dose according to local policy
- Provide EMS with identifying information, observed signs and symptoms, time epinephrine administered, used epinephrine autoinjector to take with to the hospital
- Transport to the Emergency Department via EMS even if symptoms seem to get better.

*NIAID, 2016*

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**Document and Debrief**

- Discuss with the school nurse how to record that you gave an epinephrine auto-injector dose and the symptoms you witnessed
- Have a debriefing meeting with the nurse and school administration after giving an epinephrine auto-injector
  - Talk about how response went
  - Talk about feelings
  - Talk about ways to improve in the future

*Robinson & Picozzi, 2011*

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**You Can Do It!**

- You know what to do when a student is having a life-threatening allergic reaction
- You know how to give epinephrine

You know how to save the lives of children like Bianca!

*Bianca*
YOU'VE BEEN
EMPOWERED TO SAVE A
LIFE!

Thank you for taking the time to
GET TRAINED
to administer an epinephrine auto-injector
in an emergency!

References

References