A Program for School Nurses to Train School Staff in Epinephrine Administration

The Get Trained School Nursing Program was created through an unrestricted grant from Mylan Specialty. The Program is intended to be used as a tool and resource for scripted training of unlicensed school staff to administer epinephrine via an auto injector during an anaphylactic emergency. The program recommendations and content are based on best practices. Each school nurse must exercise independent professional judgment when practicing and conducting training. Because nurse practice acts differ from state to state, each school nurse must ensure before presenting the training that it is consistent with applicable state laws and regulations, including those governing delegation, as well as applicable school district policies and procedures.

The Get Trained School Nursing Program is only intended to provide training to unlicensed school staff to administer an epinephrine auto-injector. Please see the NASN Online Food Allergy and Anaphylaxis Toolkit for information on a full allergy and anaphylaxis management program for your school.

Prior to presentation, print out handouts from NASN website, including:
- Presentation – Slide Handouts
- Preventing Food Allergy Reactions Handout
- Emergency Care / Allergy Action Plan Handout
- Sign In Sheet

Have trainers for the specific auto-injectors prescribed for your student available for practice.
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Slide 1

(Display slide as participants gather for presentation. Welcome all participants to this training session, introduce yourself if there is anyone who does not know you, and, depending on the size of the group being trained, ask them to introduce themselves to each other, if needed)

Slide 2

Welcome to Get Trained! In our time together, we’re going to talk about life threatening allergic reactions, and how you can give epinephrine, a lifesaving medication, in an emergency situation.

Slide 3

Students come to school with many different health conditions, some that require emergency care. It’s important that we know what to do – quickly and effectively – because sometimes, it can save the life of a child. Let’s consider the situation where a student – we’ll call her Bianca – is known to have a bee sting allergy. Her class is on a field trip to a local museum where the students will be eating their bag lunches outside. Bianca is stung by a bee at lunch time and tells her teacher that she was stung and that she’s having trouble breathing. The teacher looks at Bianca and sees that she is pale, her tongue appears to be swelling - she can hear her wheezing and gasping for air. Bianca needs help NOW. Do you know what to do?
Slide 4

Bianca is experiencing a life-threatening allergic reaction called anaphylaxis and the teacher in our scenario has just moments to react. Without a lifesaving medication called epinephrine given within minutes, Bianca could stop breathing. It’s important that you know what to do and how to react quickly if the school nurse is not available.

It’s important that you know how to give epinephrine.

Slide 5

Today you will be empowered to save a child’s life. I’ll show you how to administer epinephrine and we’ll talk about when it’s appropriate for it to be given. I’ll answer your questions and the plan is for you to leave this training feeling confident in your ability to administer epinephrine in an emergency.

Slide 6

We’re going to spend about a half an hour talking about allergic reactions, anaphylaxis and epinephrine. We’ll also take the time to let you practice with a training device to help you feel confident in your skills. And at the end of this program you will:

- Know the signs and symptoms of anaphylaxis,
- Have the skills to administer an epinephrine auto-injector. and
- Be able to understand how an Emergency Care / Allergy Action Plan helps you to respond to a student’s health emergency.

By the end of our time together, you will have learned how to save the life of a child like Bianca!
The first important questions are: what happens in an allergic reaction? And what is anaphylaxis?

An allergic reaction occurs when the body’s immune system mistakenly attacks a normally harmless substance (like a food protein or venom from a bee sting) that comes in contact with the body. The reaction causes the body to suddenly release a defense mechanism in the form of histamine which causes the symptoms of the allergic reaction. We’ll talk more about specific symptoms later, but the symptoms can be mild or severe. What’s interesting is that the first time the body comes in contact with the substance, there may be little or no reaction, but repeated ingestion or contact with the allergen can cause a reaction – and each reaction may produce symptoms that appear similar or different from previous episodes. It’s not always easy to describe what to expect, but when you a severe reaction happening and you wonder if it’s anaphylaxis, it probably is.

If a student has experienced an allergic reaction in the past, it’s important for them to see their healthcare provider and an allergist to be diagnosed, as there are many things that a person may be allergic to. The most common things people are allergic to, or “allergens”, are bee stings, latex and many kinds of food. Eight foods are responsible for 90% of food allergies and they are milk, egg, peanuts, tree nuts, fish, shellfish, soy and wheat. Food allergies are more common than latex allergies.
It’s important to know that some allergic reactions are mild – these usually only have signs that are related to the skin – you may see hives or discoloration, but the student would not tend to have any trouble breathing. This kind of allergic reaction can be treated with an antihistamine. There are also life-threatening reactions and students experiencing this more dramatic reaction may have difficulty breathing or feel faint. Often multiple body systems are involved – they may have trouble breathing and vomit. The treatment for this kind of allergic reaction is epinephrine – an antihistamine won’t act in time. They need epinephrine and the student will need it immediately! If a student needs epinephrine, they could die without it – and quickly. You need to know the signs and symptoms of allergic reactions so you can react right away when there is an emergency!

The severe kind of allergic reaction that can be fatal is called “anaphylaxis”. Anaphylaxis involves all major body and life organs – this isn’t seasonal allergies or rashes – this is an emergency.

As I said a moment ago, this type of reaction must be treated immediately – a person’s symptoms can progress very quickly and the reaction can become life-threatening within minutes. When a person is having an anaphylactic reaction, the FIRST thing they need is a medication called “epinephrine”. The good news is that epinephrine is made in an auto-injector, which is designed to be given by people who are not healthcare professionals – it’s made to help people feel confident giving it to another person. And that’s why we’re here today – to help you gain confidence in giving epinephrine IMMEDIATELY in an emergency situation. It’s time to “Get Trained”!
Learning to manage allergies begins with learning to prevent exposure to the allergen. We have a handout for you to take titled, “Preventing Allergic Reactions”. Once we know that a student has an allergy, it’s important to know who can help you create an “allergy aware” environment in school – and your school nurse or someone designated by the school administration can help. Our real goal is to avoid allergic reactions, but when one happens, it’s important to know how to react to the emergency situation. You need to know:

- The signs and symptoms of anaphylaxis
- What’s in the student’s Emergency Care / Allergy Action Plan
- Where your student’s medication is and how to help in an emergency

- The student’s Emergency Care Plan will be helpful to you, but IF A CHILD IS HAVING A FIRST TIME REACTION AND DOESN’T HAVE A PLAN – DON’T DELAY USING EPINEPHRINE IF NEEDED

It’s important for all members of the school community to work to prevent allergic reactions and respond to emergencies as needed. This includes classroom teachers, special area teachers, student instructional support personnel, paraprofessionals, food service personnel, custodial and transportation staff – everyone has a role in caring for students with allergies! When training staff members, remember to educate coaches, office staff and all of your important stakeholders. We must work together as a team to keep these students safe.

Next, we’ll look at the signs and symptoms of allergic reactions.
The signs and symptoms of an allergic reaction can either be mild or progress to a severe reaction. A student with a mild reaction might come to you with the following concerns:

- An itchy mouth
- A few hives, or red raised bumps, around the mouth or face that may be mildly itchy
- A complaint of a mild upset stomach or stomach discomfort

You would want to pay attention to mild symptoms to be sure they didn’t progress to a severe reaction. When you send this child to the school nurse, never send them alone and it would be best to have an adult escort them to the school nurse’s office.

If a child with a known allergy has one or more of the following symptoms, it is indicative of a severe anaphylactic reaction:

- **LUNG:** Short of breath, wheeze, 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

Anaphylaxis is also present if you see a combination of symptoms from different body areas: Hives alone may not be a severe allergic reaction, but hives along with swelling of the eyes or lips along with nausea and vomiting would indicate an anaphylactic emergency. It’s important to realize that a student may be experiencing anaphylaxis whether you see a combination of symptoms, one symptom or before any symptoms appear.
So now you’ve identified that a student is experiencing the symptoms seen in a life-threatening allergic reaction – how do you know what to do? We’re going to look at that now. Students with a diagnosed allergy and an order for epinephrine should have an Emergency Care / Allergy Action Plan written by the school nurse. That plan has steps to follow – you should review the plan with the school nurse regularly so that you are able to respond in an emergency situation. It’s all part of being prepared!

Whether or not a student has a plan, you can ask yourself: Are signs and symptoms of possible anaphylaxis present and was there an exposure to a possible trigger?

Be ready to respond whether or not a child has an Emergency Care Plan

This is an example of an Emergency Care Plan for a food allergy. You’ll see that this is a plan that is specific to an individual student and should go to all school staff that have responsibility to care for the student. This information is confidential, as all health information is, so keep it accessible, but private.

It contains the following information:

- Student Name and Allergy as well as the Student’s Photo for easy identification
- A listing of symptoms with directions to give epinephrine
- A list of the brand and dose of medication (for anaphylaxis, epinephrine should be given)
- Information about monitoring the student – it’s important to stay with the student!

This will be your “road map” for what to do for an anaphylactic reaction!

Everyone should know where medication is and HOW TO REACT
Let’s look at epinephrine administration so you’ll know what to do and be able to react quickly!

Remember, epinephrine is the drug of choice for anaphylaxis and must be administered without delay when exposure occurs.

Research has shown that when epinephrine is delayed it leads to poor outcomes, including death. It’s important to be prepared and trained to give the epinephrine promptly when needed.

Some states have protocols that call for epinephrine to be administered after an exposure whether or not there are symptoms, but whenever epinephrine is needed, parents, teachers and school administrators should not be concerned about the health effects of epinephrine on a healthy student—it has an impressive safety profile. The worst that will happen for a healthy child will be some anxiety and palpitations. If you say to yourself, “Gee, I wonder if I should give the ___” and epinephrine is the next word, don’t finish the sentence—just give the epinephrine and call 911 to activate Emergency Medical Services or EMS.

Epinephrine auto-injectors come with instructions and trainers are available for you to practice with. The Emergency Care / Allergy Action Plan will have the name of the brand of auto-injector that has been prescribed for your student by their healthcare provider—so that is the auto-injector that you will need to know how to use.

(At this time the trainer can show the web video for the auto-injector that the staff will need to know how to use. If more than one auto-injector has been prescribed for your students, show all video presentations. Have trainers available—demonstrate for the participants, and ideally have several on hand—or one for each participant—and after practicing with the auto-injector trainer, ask for a return demonstration from the staff member to be sure that they have learned the technique). Please see the Nurse Trainer’s Notes for additional information.
When learning to administer epinephrine, I can provide you with a demonstration and training.

You should always have a chance to practice with a trainer that matches the autoinjector that your student has. Be sure to know signs and symptoms – and your school may have adopted a protocol to follow – be familiar with this. *(NASN has a sample protocol at http://www.nasn.org/ToolsResources/FoodAllergyandAnaphylaxis/EpinephrinePoliciesProtocols andReporting)*

When you need to give epinephrine – have someone call 911 so they are on their way while you administer the life-saving medication. 911 MUST be called. Your school should keep track of the expiration dates on the autoinjectors so that they are ready for you to use.

When giving an autoinjector, there are some simple steps to follow:

- Remove the safety cap from auto-injector
- Place the auto-injector against the student’s outer thigh
- Push the auto-injector firmly against the thigh until the auto-injector activates
- HOLD THE AUTOINJECTOR FIRMLY IN PLACE AGAINST THE THIGH FOR AT LEAST 10 SECONDS
- Keep the device to give to EMS
Follow the building emergency response plan/protocol and:

**IMMEDIATELY ADMINISTER THE EPINEPHRINE AUTOINJECTOR PER STANDING ORDER:**

- 0.15 mg - body weight less than 55 pounds
- 0.30 mg - body weight 55 pounds or more
- Inject into middle outer side of upper leg, note time and site of injection (can be given through clothing)

*Be sure to stay with student and monitor closely until EMS (ambulance) arrives.*

Designate a person to call Emergency Medical System (911) and request ambulance with epinephrine

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Designate a person to notify, school administration, school nurse and student’s emergency contact(s)

- Stay with and observe student - be sure you maintain the airway, monitor circulation, and start CPR as necessary.
- Do not have the student rise to an upright position, but if possible, have them lying on the back with legs elevated, keeping in mind that alternative positioning may be needed for vomiting (you would have the student lying on their side with their head to the side) or for difficulty breathing they should be sitting.

Observe for any changes until EMS arrives.
IF YOU DON’T SEE IMPROVEMENT OR IF SYMPTOMS WORSEN IN ABOUT 5 OR MORE MINUTES, ADMINISTER A SECOND EPINEPHRINE DOSE - *if your local policy allows*

Provide EMS with identifying information, observed signs and symptoms, time epinephrine administered, and the used epinephrine autoinjector to take with the student to the hospital

Transport to the Emergency Department via EMS even if symptoms seem to get better. Symptoms can reappear or worsen even hours after a reaction.

It’s important to record what happened when a student has experienced anaphylaxis and epinephrine was given. Discuss the incident with me (the school nurse) and together we can document the symptoms you saw and the time you gave the epinephrine, as well as any other important details. It’s good to have a de-briefing meeting with the school administration and me after giving an epinephrine auto-injector to talk about how the emergency response unfolded, talk about your feelings and identify ways to improve your school’s emergency response plans.

You can do this! You now know what to do when a student is having a life-threatening allergic reaction. You know how to give epinephrine!

And know you know how to save the lives of children like Bianca!

Today you’ve been empowered to save a life.

*(Pause slightly for effect!)*
Thank you for your time today and your commitment to the health and safety of the students in our school.

Are there any questions or concerns at this time?