



ANAPHYLAXIS PREPAREDNESS GUIDELINES

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Office of Learning Support
Prevention and Support Services
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Anaphylaxis Preparedness Guidelines

Introduction

Anaphylaxis is a life-threatening allergic reaction that may involve multiple body systems. Food allergies are the leading cause of anaphylaxis in children.

Children who have asthma and food allergies are at greater risk for anaphylaxis and may often react more quickly, requiring aggressive and prompt treatment.

Anaphylaxis is a medical emergency that requires immediate intervention and treatment. Not everyone affected by anaphylaxis will experience the same thing, but common symptoms include hives, itching, flushing and swelling of the lips, tongue and roof of the mouth.

Epinephrine is the emergency drug of choice for treatment of an anaphylactic reaction and must be given immediately.

EpiPen[®] (epinephrine) 0.3 mg and *EpiPen Jr*[®] (epinephrine) 0.15 mg Auto-Injectors are for the emergency treatment of life-threatening allergic reactions (anaphylaxis) caused by allergens, exercise, or unknown triggers; and for people who are at increased risk for these reactions. *EpiPen* and *EpiPen Jr* are intended for immediate self-administration as emergency supportive therapy only. Seek immediate emergency medical treatment after use.

Auvi-Q[™] (epinephrine injection, USP) is used to treat life-threatening allergic reactions (anaphylaxis) in people who are at risk for or have a history of these reactions.

Law

Alabama Act No. 2014-405, Anaphylaxis Preparedness Program, passed in the regular legislative session.

Kyle Graddy Act No. 2019-456

Alabama Act No. 2019-456 An Act, To amend Sections 16-1—39 and 16—1-48, Code of Alabama 1975, relating to the administration of medications on K—12 school campuses; to name the code sections together as the **Kyle Graddy Act**; to allow the possession and self—administration of single dose autoinjectable epinephrine by students; and to provide further for the definition of single dose autoinjectable epinephrine.

Commencing with the 2007—2008 scholastic year, each local board of education and the governing body of each nonpublic school in the state shall permit the self—administration of medications by a student for chronic conditions if conducted in compliance with the State Department of Education and State Board of Nursing Medication Curriculum, as may be amended from time to time by the department and board.

The Anaphylaxis Preparedness Program shall incorporate the following three levels of prevention initiated by licensed public school nurses as a part of the health services programs:

- (1) Level I – Primary Prevention: Education programs that address food allergies and anaphylaxis through both classroom and individual instruction for staff and students.
- (2) Level II – Secondary Prevention: Identification and management of chronic illness.
- (3) Level III – Tertiary Prevention: The development of a planned response to anaphylaxis-related emergencies in the school setting.

Each local board of education may collaborate with a physician to develop and maintain a protocol for emergency response that shall include a supply of premeasured, auto-injectable epinephrine on each public school campus to treat potentially life-threatening allergic reactions. Single-dose auto-injectable epinephrine may be administered or provided to school children by the school nurse **OR UNLICENSED SCHOOL PERSONNEL WHO HAVE COMPLETED AN ANAPHYLAXIS TRAINING PROGRAM** conducted by a nationally recognized organization experienced in training laypersons in emergency health treatment or other medication administration programs approved by the Alabama State Department of Education (ALSDE) and Alabama Board of Nursing (ABN).

The learning objectives for each school are shown below.

- Common causes of emergency allergic reaction.
- How to recognize specific warning signs of a possible emergency allergic reaction.
- Correct use of epinephrine for emergency allergic reactions.

Responsibilities of Personnel

Section 1: School System Superintendent

- Provide leadership and designate school district resources to implement the school district’s approach to managing severe allergies.
- Promote, disseminate and communicate anaphylaxis allergy-related policy to all school staff, families and the community.
- Ensure that each school has a team that is responsible for allergy management.
- Be familiar with federal and state laws, including regulations, and policies relevant to the obligations of schools to students with severe allergies, and make sure district policies and practices follow these laws.
- Support professional development on anaphylaxis for employees.

Section 2: School Administrator (Principal or Assistant Principal)

- Coordinate planning and implementation of a comprehensive Anaphylaxis Allergy Management and Prevention Plan for the school in conjunction with school nurse and school improvement team.
- Communicate school district policy for managing severe allergies to all school staff, substitute teachers, classroom volunteers and families.
- Share information about students with severe allergies with all staff members **who need to know**, provided the exchange of information occurs in accordance with FERPA and any other federal and state laws that protect the confidentiality or privacy of student information.
- Support professional development on anaphylaxis for employees.

Section 3: School Nurse

- Take the lead in planning and implementing the school's Anaphylaxis Allergy Management Prevention Plan.
- Support partnerships among school staff and the parents and doctors (e.g., pediatricians or allergists) of students with severe allergies.
- Make sure that students with severe allergies are identified and share information with other staff who need to know in accordance with FERPA and any other federal and state laws that protect the confidentiality or privacy of student information.
- Develop an Individual/Emergency Care Plan for each student with a severe allergy and share with appropriate staff.
- Have the epinephrine kept in a secure place that staff can get to quickly and easily.
- Regularly inspect the expiration date on all stored epinephrine auto-injectors.
- Annually train staff members how to administer an epinephrine auto-injector and recognize the signs and symptoms of food allergy reactions and anaphylaxis.
- Make sure that food service staff are aware of what actions must be taken as written in ECP if a food allergy emergency occurs in the cafeteria.
- Make sure that staff plan for the needs of students with food/latex/insect allergies during class field trip and during other extracurricular activities.
- Work with other school staff and parents to create a safe environment for students with severe allergies.

Section 4: Medical Director

- Serve as a Medical Director on a consultation basis in the school system, supporting the coordinated approach to managing severe allergies and anaphylaxis and the use of epinephrine in the schools, and having prescriptive authority.
- Support partnerships among school staff and the parents and doctors (e.g., pediatricians or allergists) of students with severe allergies.
- Guide and support the allergy management practices of school nurses in accordance with the Nurse Practice Act and federal or state legislation.

Section 5: Food Service Staff

- Identify, with the assistance of the school nurse, students with severe allergies in a way that does not compromise students' privacy or confidentiality rights.
- Make sure to have and understand dietary orders or the doctor's statement and other relevant medical information that is needed to make meal accommodations for students with food allergies.
- Follow policies and procedures to prevent allergic reactions and cross-contact of potential food allergens during food preparation and service.
- Manage food substitutions for students with food allergies.
- Complete annual training to help recognize following:
 - ✓ Signs and symptoms of allergic reactions and how they are communicated by students.
 - ✓ How to read food labels and identify allergens.
 - ✓ How to use an epinephrine auto-injector (if delegated and trained to do so).
 - ✓ How to deal with emergencies in the school in ways that are consistent with a student's ECP.
 - ✓ When and how to call EMS and parents.
 - ✓ How FERPA, USDA, and other federal and state laws that protect the privacy and confidentiality of student information apply to students with food allergies and food allergy disabilities.
 - ✓ General strategies for reducing or preventing exposure to food allergens in the classroom, such as cleaning surfaces, using nonfood items for celebrations, and getting rid of nonfood items that contain food allergens (e.g., clay, paste).
 - ✓ Policies on bullying and discrimination against all students, including those with food allergies.

Section 6: Transportation Staff

- Understand information provided by the school nurse on emergency care plan for managing students with severe allergies being transported to or from school.
- Understand and complete annual training to help you recognize the following:
 - ✓ Signs and symptoms of severe allergy and how they are communicated by students.
 - ✓ How to respond to a severe allergy emergency while transporting children to and from school.
 - ✓ How to use an epinephrine auto-injector (if delegated and trained to do so).
 - ✓ How to deal with emergencies in a way that is consistent with a student's ECP or transportation emergency protocol.
 - ✓ FERPA, USDA, and other federal and state laws that protect the privacy or confidentiality of student information and other legal rights of students with severe allergies.
 - ✓ Policies that prohibit discrimination and bullying against all students, including those with food/latex/insect allergies.

Section 7: Teachers and Other Unlicensed Personnel

- Receive emergency care plan from school nurse and understand the essential actions needed to be taken to help manage severe allergy reactions under your supervision, including when meals or snacks are served in the classroom, on field trips, or during extracurricular activities.

- Work with parents and the school nurse and other appropriate school personnel to determine if any classroom modifications are needed.
- Share information and responsibilities with substitute teachers and other adults who regularly help in the classroom (para educators, aides, instructional specialists) if permitted by the parents.
- Complete training to help you recognize and understand the following:
 - ✓ Signs and symptoms of severe allergies and how they are manifested in and communicated by students.
 - ✓ How to read food labels and identify allergens.
 - ✓ How to use an epinephrine auto-injector (if delegated and trained to do so).
 - ✓ How to respond to food allergy emergencies in ways that are consistent with a student's ECP, if appropriate; a Section 504 Plan; or IEP, if appropriate.
 - ✓ When and how to call EMS and parents.

Background

The Local Education Agency (LEA) recognizes the growing concern with severe life-threatening allergic reactions, especially with regard to food items. Other common causes of anaphylaxis include allergies to latex, medications, and insect stings.

Pathophysiology and Treatment

Anaphylaxis can affect almost any part of the body and cause various symptoms. The most dangerous symptoms include breathing difficulties and a drop in blood pressure or shock, which are potentially fatal.

Medications used for treatment include:

- Epinephrine
- Antihistamines

Treatment of anaphylaxis is centered on treating the rapidly progressing effects of the histamine release in the body with epinephrine. The allergen should also be removed immediately.

Creating an Allergen-Safe School Environment

The LEA supports the three levels of prevention through its methods of creating an allergen-safe environment.

Level I – Primary Prevention – Promotes health and protects against threats before problems occur with food allergy and anaphylaxis awareness and training.

Level II – Secondary Prevention – Detects and treats problems early, as in a first-time reaction at school with staff or students. Early treatment of anaphylaxis saves lives.

Level III – Tertiary Prevention -

- Protecting a student from exposure to offending allergens is the most important way to prevent life-threatening anaphylaxis.
- Avoidance of exposure to allergens is the key to preventing a reaction.
- The risk of exposure to allergens for a student is reduced when the school personnel, medical provider and parent/guardian work together to develop a management plan for the student.

- Educating the entire school community about life-threatening allergies is important in keeping students with life-threatening allergies safe.

Identifying the School Team

School System Administration – School administrators will support the Anaphylaxis Preparedness Program by helping to monitor the medication supply for availability and by keeping it in a secure but accessible location. It is recommended that it be stored inside the alarmed wall cabinets in each school office. These cabinets are clearly marked and are the location where the Automated External Defibrillators (AEDs) are stored. Support will also be provided to ensure that school staff are trained and retrained as deemed necessary.

- School Nurse – School nurses will be the Anaphylaxis Preparedness Program site coordinator for each campus. Each school nurse will work with the principal to ensure staff are trained and retrained as deemed necessary. The school nurses will also monitor the safety and security of the medication by checking the expiration date and inspecting the medication to see if any tampering has occurred. The school nurse will respond to emergencies when possible and continue to function in the role as school nurse with other duties.
- School Medical Director – Dr. _____ has agreed to serve as the medical director providing authorization for this program. He will assist with program oversight and strive to meet practices offered through research on the topic of anaphylaxis, offering his guidance for the nursing protocols and prescriptive authority.
- Teachers – Teachers will be provided information each year on the school program, the signs and symptoms of anaphylaxis, the location of the medication and the forms. Teachers will be offered training each year to recognize and respond to anaphylactic emergencies.
- Food Service Personnel – Food service personnel will be provided information each year on the school program, the signs and symptoms of anaphylaxis, the location of the medication, and the forms. The food service personnel will be offered training each year to recognize and respond to anaphylactic emergencies.
- Coaches, Athletic Directors, and After-School Volunteers – These people will be provided information each year on the school program, the signs and symptoms of anaphylaxis, the location of the medication, and the forms. Coaches will be offered training each year to recognize and respond to anaphylactic emergencies.
- Transportation Personnel – These people will be provided information each year on the school program, the signs and symptoms of anaphylaxis, the location of the medication, and the forms. Bus drivers will be offered training each year to recognize and respond to anaphylactic emergencies.

Action Steps for Anaphylaxis Management

- Providing necessary precautions and general training for staff in transportation, classrooms, the cafeteria, or the gymnasium.
- Training by licensed registered professional nurses for all adults in a supervisory role in the recognition and emergency management of a specific medical condition for specific students.

- Creating Individual Health Care Plans (IHP), Emergency Care Plans (ECP), 504 Plans, or Individualized Educational Plans (IEP) as indicated.
- Having standing emergency medical protocols for nursing staff.
- Maintaining stock supplies of life-saving emergency medications, such as EpiPens, in all health offices for use in first-time emergencies.
- Following specific legal documents duly executed in accordance with the regulations and laws with medical orders regarding the care of specific students with severe life-threatening conditions.
- Allowing self-directed students as assessed by the school nurse to carry life-saving medication with prior approval by the medical provider and according to health practice and procedures as long as duplicate life-saving medication is also maintained in the health office in the event the self-carrying student misplaces his/her medicines.
- Assuring appropriate and reasonable building accommodations are in place within a reasonable degree of medical certainty.

Medication Safety

Epinephrine auto-injectors will be maintained by the school system to include resupplying as necessary. (Required forms in Appendices A - D)

Appendix A
Delivery
Verification

Epinephrine Auto-injector Delivery Verification

SCHOOL NAME _____ **DATE** _____

Label number _____ Lot number _____ Exp. Date _____

Label number _____ Lot number _____ Exp. Date _____

Location to be stored _____

Administrator

Printed Name _____ Signature _____ Date _____

School Nurse

Printed Name _____ Signature _____ Date _____

Skills Checklist Epinephrine Auto-Injector

Name of Trainee _____

	Training	Demo	Review	Review	Comments	Initials
States name and purpose of procedure						
1. States symptoms for use of epinephrine auto-injector						
Preparation						
1. Reviews universal precautions						
2. Identifies location of medication						
3. Positions student into lying position						
4. Identifies possible problems and appropriate actions						
5. Knows to call 911 when epinephrine auto-injector is used						
Identifies supplies						
1. Gloves						
2. Right medication						
Procedures						
1. Applies gloves						
2. Removes end cap from auto-injector						
3. Places tip of auto-injector on either side of outer thigh						
4. Presses hard into thigh until the mechanism injects						
5. Hold firm pressure for 10 seconds						
6. Removes auto-injector with caution to avoid accidental needle stick						
7. Massages injection site for 10 seconds to help absorption						
8. Elevates feet of victim and monitors breathing						
9. Notes time of injection						
Follow up						
1. Contacts parent and school nurse						
2. Gives 911 empty auto-injector						
3. Discards used supplies						
4. Documents the incident and gives report to the school nurse.						

Signature of Trainee _____ Date _____

Signature of School Nurse _____ Date _____

Protocol

This **protocol** is to be used in the care of children and adults who present with signs and symptoms of a severe allergic reaction while at school or at a school-related event.

Anaphylaxis is a life-threatening allergic reaction that may involve multiple body systems. This is a medical emergency that requires immediate intervention and treatment.

Possible causes of anaphylaxis are food allergies (milk, eggs, peanuts, tree nuts, shellfish, wheat, soy), insect stings (bees, hornets, yellow jackets, wasps, fire ants), latex allergies, medication, and exercise and temperature extremes (rare).

Food allergies are the leading cause of anaphylaxis in children. Children who have asthma and food allergies are at greater risk for anaphylaxis and may often react more quickly requiring aggressive and prompt treatment.

Symptoms of anaphylaxis may include any or several of the following:

- **Skin:** Swelling of face, lips, mouth, tongue, and throat.
- **Respiratory:** Difficulty swallowing; hoarseness, a person struggling to breath, making loud noises while trying to move air in and out of lungs.
- **Cardiovascular:** Collapse of vascular system, blue lips or face, low blood pressure; shock.

Epinephrine is the emergency drug of choice for treatment of an anaphylactic reaction and must be given immediately. There should be no delay in the administration of epinephrine.

1. Administer epinephrine based on individual's weight:
 - Epinephrine auto-injection (EpiPen, JR.)USP (0.15mg IM dose of epinephrine from epinephrine injection 1:1000 USP) for children weighing 33-66 pounds.

OR

 - Epinephrine auto-injection (EpiPen) USP (0.3mg IM dose of epinephrine from epinephrine injection 1:1000 USP) for individuals weighing over 66 pounds.
2. Call EMS (911) and report anaphylactic episode. *EMS transport should be informed that epinephrine has been given.
3. Place individual on back with legs elevated.
4. Notify parents/guardians/alternate adults.
5. Be prepared to begin CPR for respiratory arrest and have AED available.
6. Monitor and document heart rate; respiratory rate, respiratory effort, level of consciousness, and any progression of symptoms every few minutes or more frequently if indicated and until help arrives.
7. Prepare individual for EMS transport. EMS may need a demographic sheet on the individual.
8. Notify school nurse so that epinephrine auto-injector can be re-ordered.
9. Complete a student/staff injury report and forward to the proper administrators.

APPROVED:

Physician Authorization

Date

Medication Administration

Student Demographics and Health History

1. School District: _____ Name of School: _____
2. Age: _____ Type of Person: Student Staff Visitor Gender: M F Ethnicity: Spanish/Hispanic/Latino: Yes No
3. Race: American Indian/Alaskan Native African American Asian Native Hawaiian/other Pacific Islander White Other
4. History of allergy: Yes No Unknown If known, specify type of allergy: _____
- If yes, was allergy action plan available? Yes No Unknown History of anaphylaxis: Yes No Unknown
- Previous epinephrine use: Yes No Unknown Diagnosis/History of asthma: Yes No Unknown

School Plans and Medical Orders

5. Individual Health Care Plan (IHCP) in place? Yes No Unknown
6. Written school district policy on management of life-threatening allergies in place? Yes No Unknown
7. Does the student have a student specific order for epinephrine? Yes No Unknown
8. Expiration date of epinephrine _____ Unknown

Epinephrine Administration Incident Reporting

9. Date/Time of occurrence: _____ Vital signs: BP ____/____ Temp _____ Pulse _____ Respiration _____
10. If known, specify trigger that precipitated this allergic episode.
- Food Insect Sting Exercise Medication Latex Other _____ Unknown
- If food was a trigger, please specify which food _____
- Please check: Ingested Touched Inhaled Other specify _____
11. Did reaction begin prior to school? Yes No Unknown
12. Location where symptoms developed:
- Classroom Cafeteria Health Office Playground Bus Other specify _____
13. How did exposure occur?

14. Symptoms: (Check all that apply)
- | <u>Respiratory</u> | <u>GI</u> | <u>Skin</u> | <u>Cardiac/Vascular</u> | <u>Other</u> |
|--|--|---|---|--|
| <input type="checkbox"/> Cough | <input type="checkbox"/> Abdominal discomfort | <input type="checkbox"/> Angioedema | <input type="checkbox"/> Chest discomfort | <input type="checkbox"/> |
| Diaphoresis | | | | |
| <input type="checkbox"/> Difficulty breathing | <input type="checkbox"/> Diarrhea | <input type="checkbox"/> Flushing | <input type="checkbox"/> Cyanosis | <input type="checkbox"/> Irritability |
| <input type="checkbox"/> Hoarse voice | <input type="checkbox"/> Difficulty swallowing | <input type="checkbox"/> General pruritis | <input type="checkbox"/> Dizziness | <input type="checkbox"/> Loss of consciousness |
| <input type="checkbox"/> Nasal congestion/rhinorrhea | <input type="checkbox"/> Oral Pruritis | <input type="checkbox"/> General rash | <input type="checkbox"/> Faint/weak pulse | <input type="checkbox"/> Metallic taste |
| <input type="checkbox"/> Swollen (throat, tongue) | <input type="checkbox"/> Nausea | <input type="checkbox"/> Hives | <input type="checkbox"/> Headache | <input type="checkbox"/> Red eyes |
| <input type="checkbox"/> Shortness of Breath | <input type="checkbox"/> Vomiting | <input type="checkbox"/> Lip swelling | <input type="checkbox"/> Hypotension | <input type="checkbox"/> Sneezing |
| <input type="checkbox"/> Stridor | | <input type="checkbox"/> Localized rash | <input type="checkbox"/> Tachycardia | <input type="checkbox"/> Uterine cramping |
| <input type="checkbox"/> Tightness (chest, throat) | <input type="checkbox"/> Wheezing | <input type="checkbox"/> Pale | | |

For Office Use: Original report to School Nurse on campus where incident occurred; School Nurse will forward a copy to Health Services at CO

Medication Administration

15. Location where epinephrine administered: Health Office Other specify _____

16. Location of epinephrine storage: Health Office Other specify _____

17. Epinephrine administered by: RN Self Other Epinephrine was _____ student-prescribed or _____ school stock
 If epinephrine was self-administered by a student at school or a school-sponsored function, was the student formally trained?
 Yes If known, date of training _____ No
 Did the student follow school protocols to notify school personnel and activate EMS? Yes No NA

If epinephrine was administered by other, please specify _____
 Was this person formally trained? Yes Date of training _____ No Don't know

18. Time elapsed between onset of symptoms and communication of symptoms: _____ minutes

19. Time elapsed between communication of symptoms and administration of epinephrine: _____ minutes
 Parent notified of epinephrine administration: (time) _____

20. Was a second epinephrine dose required? Yes No Unknown
 If yes, was that dose administered at the school prior to arrival of EMS? Yes No Unknown
 Approximate time between the first and second dose _____
 Biphasic reaction: Yes No Don't know

Disposition

21. EMS notified at: (time) _____ Transferred to ER: Yes No Unknown
 If yes, transferred via ambulance Parent/Guardian Other Discharged after _____ hours
 Parent: At school Will come to school Will meet student at hospital Other: _____

22. Hospitalized: Yes If yes, discharged after _____ days No Name of hospital: _____

23. Student/Staff/Visitor outcome: _____

If first occurrence of allergic reaction:

a. Was the individual prescribed an epinephrine auto-injector in the ER? Yes No Don't know

b. If yes, who provided epinephrine auto-injector training? ER PCP School Nurse Other _____
 Don't know

c. Did the ER refer the individual to PCP and/or allergist for follow-up? Yes No Don't know

School Follow up

24. Did a debriefing meeting occur? Yes No Did family notify prescribing MD? Yes No Unknown

25. Recommendation for changes: Protocol change Policy change Educational change Information sharing
 None

27. Form completed by: _____ Date: _____
 Title: _____ Phone number: (____) _____ Ext.: _____ Email: _____

For Office Use: Original report to school nurse on campus where incident occurred; school nurse will forward a copy to Health Services at CO

References

National Association of School Nurses (2013) Food allergy and anaphylaxis

<http://www.nasn.org/ToolsResources/FoodAllergyandAnaphylaxis>

Many thanks to Dr. Darrell Cooper, Superintendent, Alexander City Schools, and Mrs. Melanie Sharpton, MSN, RN, for being leaders in anaphylaxis preparedness. www.alexcityschools.net