



MANAGEMENT OF STUDENTS AT RISK FOR ANAPHYLACTIC REACTION

MARYLAND STATE SCHOOL HEALTH SERVICES GUIDELINE

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Foreword

There is a strong relationship between academic achievement and a child's physical, emotional and mental health. This link is the foundation for providing school health services as an important component of a school program. School health services provide primary prevention aimed at keeping students in schools through appropriate screenings, early identification of children at risk for physical, emotional and mental health concerns, and case management of students with chronic health concerns.

The Annotated Code of Maryland, Education Article, §7-401 requires the Maryland State Department of Education (MSDE) and the Maryland Department of Health and Mental Hygiene (DHMH) to jointly develop public standards and guidelines for school health programs. The guidelines developed under §7-401 contain recommendations for minimum standards of care and current best practices for the health service topics addressed. The following guideline was developed in accordance with that requirement and is based on the expressed needs of the local school health services programs. It is intended that these guidelines will be used by the local school systems in developing local school health services policies and procedures as a means to assist local school health services programs in providing consistent and safe care to the students of Maryland. Specific laws and regulations that direct school nursing practice or other health services are identified in the guidelines.

To implement these guidelines, local school systems and local health departments should consult with the Maryland State Department of Education and the Department of Health and Mental Hygiene who will:

- Assist and provide technical assistance to local school health programs to support their efforts to plan for students with special health needs;
- Provide training to all appropriate school staff regarding issues related to students with special health needs including, but not limited to, planning, maintaining a safe environment, and medication administration issues; and
- Monitor the implementation of school health services programs including but not limited to programs and policies related to students and staff with special health needs.

Introduction

Allergic reactions are an immune system hypersensitivity to a particular substance called an allergen. For many allergic individuals, exposure to an allergen results in mild symptoms. However, for some, allergic reactions can be severe and result in potentially life-threatening medical conditions. The most dangerous symptoms include breathing difficulty and a drop in blood pressure or shock, both of which are potentially fatal. Anaphylaxis refers to this type of severe allergic reaction. Anaphylaxis may affect students with both known allergies and those without known allergies.

Students with a diagnosis of anaphylaxis, or who are at risk for anaphylaxis do not necessarily require daily care in the health suite and are encouraged to participate in all school activities. Students with a history of anaphylaxis, or who are identified as having severe allergic disease and are at risk for anaphylaxis, require health care plans to meet their needs in the event of an emergency as well as policies and procedures in place to reduce the risk of allergen exposure. Epinephrine injection is the emergency medical treatment for anaphylaxis. Each child with a diagnosis of anaphylaxis or at risk for anaphylaxis should have at least one individual auto-injector epinephrine available in school.

Planning is an essential part of the care for students with a diagnosis of anaphylaxis or at risk for anaphylaxis. The school nurse requires communication, collaboration, coordination, and cooperation between the school, family, student, and community health care provider to effectively plan. Local school system policy is also important to the process of planning and implementing procedures to address student safety.

The safety of students with life-threatening allergies requires five key activities: 1) allergy awareness, 2) planning, 3) allergen exposure avoidance measures, 4) treatment strategies, and 5) training. School health services staff, other school staff, parents, and students all have responsibilities within each of these key areas. Managing allergies in school is a team effort among the health care provider, family, student, and school.

The guidelines that follow address the needs of students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider. Guidelines for those who may experience anaphylaxis with an unknown history of anaphylaxis or allergic reactions are contained in another document, *Guidelines for the Emergency Management of Students with Unknown History of Anaphylaxis or Severe Allergic Reactions*.

Purpose

1. To provide guidelines to school health staff for planning and for addressing the needs of students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider.
2. To provide guidelines for the management of students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider.
3. To provide guidance on allergen exposure risk reduction through education, training, and environmental assessments and controls, and
4. To define the roles and responsibilities of school health services staff, school administrators, school food service staff, and other school staff, parents/guardians and students in the planning and management of students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider.

Definition

Anaphylaxis is a sudden, severe, potentially life-threatening allergic reaction that affects multiple organ systems of the body. Anaphylaxis requires immediate medical attention as it can be fatal if not reversed within seconds or minutes of coming in contact with the allergen. Allergens such as insect stings or bites, foods, latex, medications and other allergens are common causes of anaphylaxis, but it may also be idiopathic or exercise-induced. Anaphylaxis usually occurs immediately (seconds or minutes) but also may occur several hours after allergen exposure. Symptoms progress rapidly, making it a medical emergency. The signs and symptoms of an anaphylactic reaction include, but are not limited to, those listed in Table 1.

Table 1

| SIGNS and SYMPTOMS OF AN ANAPHYLACTIC REACTION | |
|---|---|
| Organ System | Sign(s)/Symptom(s) |
| <i>Mouth/Throat</i> | Itching, tingling, or swelling of lips, tongue, or mouth; blue/grey color of lips; hacking cough; tightening of throat; hoarseness; difficulty swallowing |
| <i>Nose/Eyes/ears</i> | Hay fever-like symptoms: runny, itchy nose; redness and/or swelling of eyes; throbbing in ears |
| <i>Skin</i> | Facial flushing; hives and/or generalized itchy rash; swelling of face or extremities; tingling; blue/grey discoloration |
| <i>GI</i> | Nausea, abdominal cramps, vomiting, diarrhea |
| <i>Lung</i> | Shortness of breath; wheezing; short, frequent, shallow cough; difficulty breathing |
| <i>Heart</i> | Thready or unobtainable pulse; low blood pressure; rapid pulse, palpitations, fainting; dizziness; pale, blue, or gray color of lips or nail beds |
| <i>Mental</i> | Uneasiness; agitation; unconsciousness |
| <i>Other</i> | Any other symptom specific to an individual's response to a specific allergen |

NOTE: Not all signs and symptoms need be present in anaphylaxis.

Emergency Management of Anaphylactic Reaction

Adrenaline (epinephrine) is a quick-acting hormone that works to relieve and prevent all of the physiological processes that occur with anaphylaxis. The use of auto-injector epinephrine is recommended in the emergency treatment of an anaphylactic reaction since it does not require manipulation or handling of a syringe, nor calculation or measurement of a dosage. There are more than one epinephrine auto-injector products available for use. Staff responsible for administering emergency medications for anaphylactic reactions must be familiar with the operation of all types of devices used by the students in the school building.

When a person is having or is suspected of having an anaphylactic reaction:

1. Rapidly assess Airway, Breathing, and Circulation (ABC's) and begin CPR as necessary;
2. Follow emergency plan completed by the student's health care provider. This may include administration of diphenhydramine and/or auto-injector epinephrine;
3. Directions for use of auto-injector epinephrine:
 - a. Pull off safety cap or caps (depending on manufacturer there may be one or two caps to be removed to allow the injector to be discharged);
 - b. Make sure thumb or fingers do not contact tip of auto-injector;
 - c. **Apply injector directly against the thigh, but may administer through clothing, if necessary;**
 - d. Place tip on thigh at right angle to leg. Always give in the antero-lateral aspect of the thigh (outside of the mid-thigh);
 - e. Press firmly into the thigh until the auto-injector mechanism discharges the medication, and hold in place for 10 seconds;
 - f. Remove the injector and discard in a biohazard container; and
 - g. Massage the injection area for 10 seconds.
4. **Call 911** after giving epinephrine and notify dispatcher that epinephrine has been given for an anaphylactic reaction, and that paramedics are needed to provide and continue administration of epinephrine if needed;
5. Assist student into a comfortable position. Lay the student on their back as long as airway swelling does not make breathing uncomfortable or difficult in that position. Light-headedness or loss of consciousness indicate low blood pressure which necessitate lying the student flat and elevating the legs;
6. Loosen restrictive clothing. Give nothing by mouth. Reassure and assist to keep student calm;
7. Stay with the student until 911 personnel arrive and accept care responsibilities;

SPECIAL NOTE: IT IS RECOMMENDED THAT ANYONE RECEIVING EPINEPHRINE BE TRANSPORTED TO A HOSPITAL BY PARAMEDICS TO PROVIDE ANY ADDITIONAL MEDICAL CARE THAT IS NEEDED. EMS WILL DETERMINE TRANSPORTATION NEEDS AFTER THEIR ASSESSMENT AS PART OF THEIR CARE RESPONSIBILITIES.

8. Notify parent/guardian or student's emergency contact;
9. Follow local school system emergency policy regarding 911 calls;
10. Complete documentation of the incident, including the time of epinephrine administration, the suspected precipitating cause, and 911 and parent notifications according to any local documentation guidelines;
11. Send documentation of the event, including vital signs, interventions and student's identifying information to the hospital with EMS personnel according to local policy; and
12. Maintain a copy of the above documentation for the health record according to local policy.

The Nursing Appraisal/Assessment

Data Collection

It is essential that the school nurse be informed of all aspects of medical, educational, and social issues regarding students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider. The school nurse collects information from a review of medical and educational records (i.e., the school health record, the Student Record Card, emergency health card, and the student cumulative education record). It is necessary that the school nurse obtain the needed medical information related to the student's health condition from the parent/guardian and the student's health care provider. This should include:

- Written documentation from the student's health care provider regarding the specific allergies and interventions to be implemented in case of an exposure or reaction;
- Up-to-date and accurate history of allergic reactions and allergens from parents and health care providers and student as appropriate; and
- Other relevant health information and assessments from the student's health care provider.

The school nurse should seek additional information from the following sources if needed:

- Student interview;

- Teaching staff; and
- Classroom observation(s).

The school nurse should maintain for students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis an updated file that contains:

- Current health care provider orders;
- An initial and annually reviewed health appraisal or nursing assessment;
- A current emergency care plan if not included in the individualized health care plan; and
- Current emergency contact information and numbers, updated at least annually.

Health Appraisal and Nursing Assessment

The school nurse should assess the special health needs of students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider using local standard assessment procedures and the procedures outlined in the *Maryland State School Health Services Guidelines: Nursing Appraisal/Assessment of Students with Special Health Needs*. The school nurse should use the information obtained in the nursing appraisal and assessment to develop a written individualized health plan. The school nurse should develop that plan with input from the student's parent/guardian and their health care provider(s). The plan should outline the student's needs and the specific interventions appropriate to meet those needs. The school nurse should be cognizant of policies regarding the release of records, information sharing, and confidentiality. Identifying information, information specific to the student's allergies, history of anaphylaxis, risk of anaphylaxis, and treatment needs should include, but not limited to the following;

Identifying Information/Contact Information

- Name of parents/guardians, address, phone number, and emergency contacts;
- Student's date of birth (DOB) and grade;
- Primary care provider's name and phone number; and
- Name and phone number of allergy specialist (if the student is under the care of one).

Medical History/ Allergy History

A very important part of the medical history is a thorough assessment of the current allergy status and treatment. The allergy/anaphylaxis specific information along with other relevant medical history may include the following:

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- Current diagnosed medical conditions;
- Current medication and treatment orders for allergies and other identified conditions, and the indications for their use;
- Emergency medications and the indication for their use;
- Side effects of all current medications;
- Family history of allergies and anaphylaxis;
- Development of disease, progress of disease, and initial anaphylaxis diagnosis;
- Current allergens (foods, insect stings, etc) type and severity of reaction to each allergen, and management and treatment for reactions to each allergen and typical response to interventions;
- History of anaphylaxis emergencies and frequency and circumstances of allergen exposures;
- History of emergency department visits;
- Number of days of school missed in the past year;
- Limitation of activities;
- Family and student's understanding of the condition and its management;
- Ability of family and student to cope with the condition;
- Interactions with peers and teachers in the past;
- Written copy of health care provider's orders and anaphylaxis management plan;
- Written copy of health care provider's allergen exposure avoidance recommendations;
- Student's understanding and demonstration of medication administration technique; and
- Level of independence with medication/treatment including ability to possess and self-administer medication.

Students who obtain school meals as part of any United States Department of Agriculture (USDA) school meal program (i.e. school breakfast program or school lunch program) are entitled to meal modifications because of their special health need. In order to plan for meal/food accommodations, the following additional information is required for both free and reduced

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priced meals as well as full price meals. USDA regulations 7CFR Part 15b requires substitutions or modifications in school meals for children whose disability restricts their diet. A child with a disability or special health need must be provided food substitutions when a statement signed by a licensed health care provider supports the need. The health care provider statement must identify or provide:

- The child's disability or special health need;
- An explanation of why the disability or health need restricts the child's diet;
- The major life activity affected by the disability or health need;
- The food or foods to be omitted from the child's diet; and
- The food or choice of foods that must be substituted.

School Environment

The school nurse should work in collaboration with school administrators and other school staff to assess the school environment in order to identify and address possible allergen exposure risks and barriers to emergency treatment. A comprehensive emergency plan for individual students should include consideration of classroom, cafeteria, and other areas of the school, school-sponsored events, and school buses. For example, the school nurse may work with school staff to identify areas for reducing the risk of exposure to allergens for students with anaphylactic reactions such as:

- Classrooms- allergens in the classroom such as craft materials, other classroom teaching materials, and food items brought into the classroom;
- Cafeteria- food ingredients in each menu items that should be avoided, plan for food substitutions if necessary, review procedures in cafeteria or other food service areas to avoid cross-contamination food handling and distribution, and hand washing practices that may reduce exposure of students to food allergens;
- School-sponsored activities- potential exposure to allergens on field trips, recess, and other school sponsored activities and implementation of emergency plans; and
- School bus- recognizing allergic reactions; implementing bus emergency plans and procedures.

Accommodations

Accommodations for individual students should be developmentally appropriate and school specific. A copy of the nurse's final assessment should be placed in the student's health record and should be shared with the parents/guardian and health care provider. As the student advances through the school system, his/her needs may change, therefore, accommodations will need to

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change accordingly. Accommodations to reduce the risk of allergen exposure may include, but are not limited to;

- Removal/replacement of classroom teaching materials that pose an exposure risk; and
- Modification of school/classroom policies on food brought in to the school by parents for celebrations or other events.

Annotated Code of Maryland, Section 7-426.1 requires principals to designate a nut or other allergen-free table in the cafeteria for students with nut or other food allergies.

Individualized Health Plans and Emergency Plans/Protocols

Based on nursing judgment, an individualized health plan (IHP) may need to be developed. The school nurse may develop an IHP that addresses the unique aspects of the school setting and should include the student's routine and emergency medication as ordered by the student's health care provider, as well as the health care provider's recommendations for allergen avoidance/allergen exposure risk reduction. The IHP includes the nursing diagnoses and desired student outcomes. Documentation of school nurse interventions and evaluation of student outcomes are recorded on the IHP.

The school nurse should review and update the IHP at least annually. The following information gathered from the nursing assessment should be considered when developing individualized health care plans for students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider:

- Severity of disease;
- Identification of allergens, allergen avoidance strategies, and allergen elimination strategies;
- Developmental considerations;
- Barriers to best practice management;
- Parental concerns and expectations;
- Student concerns;
- Classroom jobs, projects, and special events that may involve food or allergen exposure;
- Classroom, bus, and cafeteria environment and accommodations;
- Plan to alert and train school staff regarding student allergies and expected role in allergen avoidance and emergency plan implementation;

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- Schedule- physical education, lunch, recess, field trips, transportation to and from school, other school-sponsored activities;
- Emergency care including provisions for a student exposed to allergens, such as emergency medication administration protocol/emergency care plan, an adult escort to the office/health room, contacting the parents/guardians, and health care provider;
- Knowledge of student's allergy by appropriate school staff, including substitutes, and accompanying staff training;
- Educational needs and accommodations;
- Medication administration, including self administration;
- Student's ability to identify need for interventions; and
- Storage of and access to emergency medication and/or equipment including light and temperature exposure precautions.

Emergency Plans

The school nurse should develop an emergency plan for all students with a diagnosis of anaphylaxis or at risk for anaphylaxis as documented by a health care provider. This plan should be developed to communicate how and where the auto-injector epinephrine should be placed to be secure and immediately accessible to all designated school personnel and the emergency protocol in the event of an allergen exposure. This plan should include, but not be limited to;

- Health care provider's orders and nursing interventions;
- The health care provider's emergency orders/ specific emergency interventions needed;
- Emergency contact information that is updated as changes occur;
- What should be done if a nurse is not available;

NOTE: The Maryland Nurse Practice Act (Title 10, Subtitle 27, Code of Maryland Regulations) allows delegation of certain nursing functions. The decision as to whether the student's health care needs may be delegated is based on the delegation criteria outlined in the Maryland Nurse Practice Act and the professional judgment of the school nurse. The school nurse must also determine the appropriate personnel/staff to which the responsibility for administering epinephrine by auto injector should be given.

* Each jurisdiction should have a procedure or protocol that addresses what to do in the event that the parent has not provided an epinephrine auto-injector.

- Signs and symptoms for which emergency care may be needed that are specific to an individual student's typical allergic reaction history;
- Who and when to call 911;
- How auto-injector epinephrine will be stored to assure appropriate temperature and light exposure precautions and to allow immediate availability of the medication to students and staff for those students who do not possess and/or self-administer their medication;
- How many and in what locations auto-injector epinephrine devices are needed in the school; and
- School staff that will be designated to administer auto-injector epinephrine in the event of an allergen exposure.

Facilitating immediate access to epinephrine auto-injector to avoid treatment delay is the objective for the determination of the location(s) for the epinephrine auto-injector and how many are needed. When planning, the following should be considered:

- Size and layout of the school building;
- Feasibility for having an auto-injector located at multiple sites within the building;
- Feasibility for having the auto-injector safely passed from teacher to teacher as the student moves throughout the building (e.g. a fanny pack); and
- Ways a student can securely carry the injector for immediate access by the student or for use by a trained adult who is present with the student (e.g. a fanny pack).

SPECIAL NOTE: THE EFFECTS OF EPINEPHRINE INJECTION MAY WEAR OFF RAPIDLY AND PLACE THE STUDENT AT RISK FOR RECURRENCE OF SYMPTOMS. THEREFORE, SCHOOL NURSES SHOULD DISCUSS WITH THE FAMILY THE NEED TO HAVE A SECOND AUTO-INJECTOR AVAILABLE.

Communication

The school nurse should share a copy of the emergency plan with the parent/guardian and appropriate school management team/staff (including bus drivers), and place a copy in the student's health record. School staff who have direct contact with the student should have immediate access to the emergency care plan at all times in a manner determined by the school nurse and the school staff in order to allow immediate access while also protecting the student's confidentiality.

The school nurse should communicate to the school food service manager on site necessary cafeteria accommodations needed by students with food allergies, diagnosis of anaphylaxis or have health conditions that place them at risk for anaphylaxis to foods. The school nurse should determine needs in collaboration with the parent/guardian and health care provider.

It is important that parents and health care providers are aware of the school health services guidelines used to guide the development and implementation of care plans. Local school health programs should develop policies and procedures for making the guidelines available to parents and health care providers and on how to communicate the content of individualized health plans to parents.

Self-Carry/Self-Administration of Medications

Students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider who are developmentally capable and have received appropriate and adequate instruction should be encouraged to possess and to self-administer their epinephrine auto-injector. This requires the health care provider to complete a medication order form for the school and indicate that the student can possess and self-administer the medication. Section 7-421 of the Education Article, Annotated Code of Maryland, states: "The school nurse shall assess the student's ability to demonstrate the skill level necessary to ensure proper and effective use of the medication in school." The school nurse should assess each student's:

- Ability to communicate to school staff when an allergen exposure has occurs;
- Ability to use correct technique to self-administer epinephrine;
- Ability to recognize when to use the auto injector; and
- Developmental ability to perform this task in a responsible manner.

The school nurse should review annually with the student the correct procedures for storing and administering the auto-injector epinephrine and discuss with parents the need for a back up auto-injector epinephrine device to be stored in the health room.

Case Management and Care Coordination

Some students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider may need a designated school case manager to coordinate his/her care.

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The school nurse is often the case manager for these students, but another student services staff member or Individualized Education Plan (IEP) or 504 team member may be designated as the case manager. The school nurse serves as the liaison between the health care team, school staff, administration, pupil services staff, parents/guardians, food service managers, and the student regardless of who is the designated case manager. The school nurse can also refer the student and/or family for counseling, support groups, and access to medical care.

Effective case management requires coordination between all persons involved in the care of the student. Each person or team member has a specific set of responsibilities for the care of the student:

Parent Responsibilities

Parents are an integral part of the process of planning, care, and coordination of care for all students with a diagnosis of anaphylaxis or who are at risk of anaphylaxis as documented by a health care provider. In addition, the Annotated Code of Maryland, Education Article, §7-426 designates parents with certain responsibilities. It is important that school nurses and parents/guardians work collaboratively to provide for the health and safety of students with a diagnosis of anaphylaxis or at risk for anaphylaxis as documented by the health care provider. School nurses should seek to involve the student's parent/guardian to the fullest extent possible. To that end, the parent/guardian is responsible for the following:

- Provide the school with emergency contact information that is accurate and updated as needed;
- Provide the school with complete and accurate medical information related to the student's allergic condition. This information includes, but is not limited to;
 - Up-to-date and accurate history of allergic reactions;
 - Types of allergens and triggers;
 - Written health care provider documentation of the student's allergic condition; and
 - A written list of food or other allergies;
- Work with the school nurse to develop the plan of care for the student with allergies and risk of anaphylaxis to the best of their ability;
- Supply and maintain at least one non-expired auto-injector epinephrine device annually at the beginning of the school year, along with the appropriately completed written medication order;
- Work with the school nurse and health care provider to obtain additional epinephrine auto-injectors based on need;
- For students who self-carry, monitor the proper storage (i.e. away from light and high temperatures) and routinely check the expiration dates of epinephrine auto-injectors; and

- Provide the recommended and preferred medical identification bracelet/necklace indicating allergic condition.

NOTE: Each jurisdiction should have a procedure or protocol that addresses what to do in the event that the parent has not provided an epinephrine auto-injector.

NOTE: If transport times are prolonged in the local school areas, it is recommended that parents provide two auto-injector epinephrine devices in case a second dose is needed prior to arrival of local emergency personnel.

Student Responsibilities

Coordinating and managing the care of students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider requires the school nurse to communicate to the student their role in the planning process. Student participation in planning must be developmentally appropriate. Student responsibilities must also be developmentally appropriate and may include, but are not limited to;

- Avoiding known allergens;
- Immediately informing school staff in the event of an exposure;
- Acting responsibly when possessing and self-administering medications, specifically, not to misuse medication; and
- Participate in care planning.

School Responsibilities

The Annotated Code of Maryland, Education Article, §7-426 specifies certain school and school administrator responsibilities for the care of students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider. School administrators should work closely with school nurses in planning for these students. The school administrator and school nurse should collaborate in gathering, maintaining, and reviewing school-wide information required to meet the needs of these students. School nurses should provide aggregate data to the school administrator regarding the number and type of allergies and anaphylaxis risks in the student population, and the needed accommodations.

The school administrator must be aware of students with a diagnosis of anaphylaxis or at risk for anaphylaxis as documented by a health care provider, and work with the school nurse to support the effective implementation of health care plans for these students. Implementation of the health care plans includes supporting reasonable accommodations that are based on the school nurse's assessment, healthcare provider orders, and the unique needs of each individual student.

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The school administrator:

- Supports the school nurse's training, education and awareness activities, which include, but are not limited to;
 - Providing staff training in allergen exposure risk reduction, recognition of signs and symptoms of an anaphylactic reaction, and the use of epinephrine auto-injectors;
 - Planning for implementation of student emergency care plans on school sponsored events;
 - Providing outreach and education for parents, other caregivers, and the general school community;
 - Making auto-injector epinephrine as accessible as possible to avoid treatment delay; and
 - Supports the school nurse in regards to adherence to the parent/guardian responsibilities.

School Staff Responsibilities

Other school team members may contribute to the management of students with a diagnosis of anaphylaxis or at risk for anaphylaxis as documented by the health care provider in ways that include, but are not limited to;

- Bus Drivers Respond to an emergency as instructed and trained; communicate problems or concerns with the transportation office, school nurse and school administrator.
 - Coaches/Advisors for School Sponsored Activities Respond to an emergency during athletic or other activities as instructed and trained; communicate problems or concerns to the school nurse and school administrator.
 - Food Services Staff Make meal substitutions or modifications in school meals according to USDA requirements, assist with dietary accommodations as necessary; share food ingredient lists with school nurse.
 - School Counselor Assist with disability awareness, support groups/counseling.
 - Pupil Personnel Worker/ School Social Worker Assist with transportation issues, home teaching and attendance issues.
 - School Psychologist Assist with any needed behavioral strategies.

- Teachers Respond to an emergency as instructed and trained, communicate problems or concerns with school nurse and school administrator.

Outreach and Education

School-wide outreach and education regarding allergy awareness and allergen avoidance measures within the school is recommended. School nurses should provide parent/guardian of students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider information regarding resources. (See resource list at the end of the guideline for a list of parent/guardian resources.)

The school nurse should provide or arrange for all appropriate school staff to receive training on anaphylaxis. The school nurse should apprise all appropriate school staff who have responsibility for the student during the school day of the child's allergies and specific interventions needed. The school nurse may share student-specific information when necessary to protect the health of the students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider. Training may include, but is not limited to;

- Definition of allergies and anaphylaxis;
 - Classroom accommodations;
 - Cafeteria accommodations;
 - Transportation accommodations;
 - Accommodations for school-sponsored activities;
 - Allergen avoidance and allergen exposure risk reduction;
 - Symptoms to report to the school nurse (i.e. symptoms of anaphylactic reaction);
 - Confidentiality protections;
 - Review of the individual emergency plan/protocol;
 - Maintenance of emergency plans/protocols with information provided to staffing substitutes, e.g., classroom, school health, transportation, and food services staff;
 - Medication information related to storage, access, locations, and administration technique; and
 - Education for school visitors or volunteers with student contact, as needed per local policy.

The school nurse should document the provision and the receipt of training for each staff member who attended.

Education Planning

A nursing assessment is a recommended part of the process for determining special accommodations for students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider (e.g. change in school placement, concurrent or intermittent home teaching, or adaptations to physical education class). For more specific information regarding education planning, please refer to *Role of the School Nurse in Implementing 504 and Individualized Education Plans*.

School-Sponsored Activities

If a school-sponsored activity is planned, the assigned personnel should give sufficient notice to the school nurse so that preparation can be made and a plan can be developed for ensuring the safety of students with a diagnosis of anaphylaxis or who are at risk for anaphylaxis as documented by a health care provider. Prior to the school-sponsored activity, the school nurse should ensure the teacher/staff member in charge has copies of the emergency care plan for the student.

Monitoring/Evaluation

The school nurse should evaluate and monitor anaphylaxis management. The school nurse must assess the student's response to and the effectiveness of the emergency plan and IHP to meet the student's health and educational needs on an ongoing basis and make appropriate adjustments.

GLOSSARY

ABC's: The acronym for “Airway, Breathing, and Circulation” used in the assessment of an ill individual by a health care provider or first responder.

Accommodations: Changes or adjustments in a work or school site, program, or job that makes it possible for an otherwise qualified employee or student with a disability to perform the duties or tasks required as required under 29 C.F.R. pt. 1630 app. § 1630.2(o) (1997).

Allergen: A substance that causes an allergic reaction.

Allergen avoidance and exposure risk reduction: Actions or activities documented in an individualized health care plan that specifically addresses the interventions needed to reduce the risk that an allergic person will come in contact with an allergen that puts them at risk for anaphylaxis or other allergic symptoms.

Anaphylaxis: A constellation of life threatening symptoms affecting multiple systems in the body that results from an allergic reaction to an allergen and requires immediate medical attention. It can be fatal if not reversed within seconds or minutes of coming in contact with the allergen.

Auto injector: A medication delivery device designed to automatically administer an injectable medication (e.g. epinephrine) that does not require manipulation or handling of a syringe or needle nor the measurement of the medication dose.

CPR: The acronym for “Cardiopulmonary Resuscitation”. CPR is done in response to an airway, breathing, or circulatory emergency in an attempt to maintain oxygenation to the brain and vital organs until normal body functions are restored or rescue personnel arrives.

Delegation: The act of assigning certain nursing tasks (in accordance with the Maryland Nurse Practice Act) to a certified nursing assistant (CNA), a certified medication assistant, or an unlicensed individual by a registered nurse or licensed practical nurse.

Emergency Plan: a document that specifies the actions needed to manage a student’s specific, medical condition in the event of a medical emergency.

Epinephrine: a hormone normally secreted in response to stress used chiefly as a heart stimulant, to constrict the blood vessels, to maintain blood pressure and to prevent or counteract the physiologic response to an allergen during an allergic or anaphylactic reaction.

Health Appraisal: The process by which a designated school health services professional identifies health problems that may interfere with learning. These may include health observations, interviews, and conferences with parents/guardians, students, educators, and other health professionals.

Individualized Health Plan: A type of nursing care plan that is developed by the school nurse utilizing the data from a nursing appraisal/assessment that is specific for a student with a chronic health condition and is designed to meet the student’s unique health care needs. The individualized health plan should include an emergency care plan when needed. In some cases it may be appropriate for the individualized health plan to only contain care to be provided in an emergency.

Nurse Practice Act: A statute enacted by the legislature of any state or by the appropriate officers of the district. The act delineates the legal scope of the practice of nursing within the geographical boundaries of the jurisdiction.

Nursing Assessment: The act of gathering and identifying data that assists the nurse, the client, and the client's family to identify the client's health concerns and needs. (Nurse Practice Act, Annotated Code of Maryland, Health Occupations Article, Title 8, COMAR Title 10, Subtitle 27.)

School Nurse: A registered nurse currently licensed by the Maryland Board of Nursing who works in a school setting.

Self-Administration: The application or consumption of medication by an individual in a manner directed by the health practitioner without additional assistance or direction (Sec §7-421, Annotated code Of Maryland).

Self-Carry: The possession of a medication on an individual's person to allow quick access to and administration of the medication and to allow self-administration when specified.

RESOURCES

- **American Academy of Allergy, Asthma, & Immunology:** <http://www.aaaai.org/>
- **American College of Asthma, Allergy & Immunology:** <http://allergy.mcgs.edu/home.html>
The American College of Asthma, Allergy & Immunology is an information and news service for patients and parents of patients.
- **Asthma & Allergy Foundation of America:** <http://www.aafa.org> The Asthma and Allergy Foundation of America is a patient organization dedicated to improving the quality of life for people with asthma and allergies through education, advocacy and research. This site contains resources and continuing education programs for health care professionals.
- **The Food Allergy & Anaphylaxis Network (FAAN):** <http://www.foodallergy.org/> The Food Allergy & Anaphylaxis Network. FAAN serves as the communication link between the patient and others. Their mission is to raise public awareness, to provide advocacy and education, and to advance research on behalf of all those affected by food allergies and anaphylaxis.
- **USDA, Food and Nutrition Services:** <http://www.usda.gov>. *Accommodating Children with Special Dietary Needs in the School Nutrition Programs: Guidance for School Food Service Staff.* Fall 2001.
- **Safe@School® Partners, Inc:** www.foodallergysmart.org Safe@School Partners, Inc. is a 501c3 nonprofit organization whose mission is to support schools, camps and daycares in their efforts to keep food-allergic students safe at school. Their primary service is the provision of food allergy safety training to schools, camps and child cares sites.