Protocol

Treatment of Anaphylaxis with Epinephrine

Anaphylaxis is a rapid, severe allergic reaction that occurs in response to contact with an allergen to which a person has been previously sensitized. It can be idiopathic but is most commonly triggered by stings of the insect family hymenoptera, certain foods, medications, inhalants, and exercise.

Symptoms that signal the onset of an extreme allergic reaction include: urticaria, flushing, swelling of the lips, tongue, and throat, swelling of the hands and feet, wheezing, difficulty breathing, coughing, hoarseness, headache, nausea, vomiting, abdominal cramps, sense of impending doom, hypotension, loss of consciousness and death.

Initial symptoms may appear within seconds or up to two hours after exposure. Because death can occur within minutes, anaphylaxis requires immediate attention.

Administration of epinephrine is effective in countering the effects of anaphylaxis. Epinephrine: 1) causes vasoconstriction of capillaries thus reducing peripheral pooling and shock. 2) reduces the permeability of capillaries to lessen edema; 3) restores circulating blood volume, and 4) relaxes smooth muscles of the bronchiole thus relieving bronchospasm, wheezing, and dyspnea.

It is within the scope of practice for professional registered nurses in the state of North Carolina to be able to recognize the symptoms of anaphylaxis and to administer epinephrine either by approved intranasal spray or auto-injector, in accordance with established procedures and manufacturer instructions.

Protocol:

All school nurses will have epinephrine available for use in the schools.

Management Guidelines for Allergic Reactions Following a Sting

1. In the event of a reported sting of a student, staff member or visitor to the school, the school nurse will:
    A. Obtain a history of the sting victim's past reaction to stings.
    B. Determine if there is evidence of a sting and remove the stinger if one is present.
    C. Apply ice to the sting site to slow absorption of venom.
    D. Advise observation of the person for 2 hours for any sign of anaphylaxis.
    E. Advise notification of the parent/guardian in the case of a minor.

2. If the school nurse determines that the sting victim is having signs of anaphylaxis, she will administer epinephrine immediately, following approved procedure.

Management Guidelines for Allergic Reactions Following Exposure to Other Antigens

1. In the event of an allergic response to a known or unknown antigen in a student, staff member or a visitor to the school, the school nurse will:
   A. Obtain a history of the victim's past allergic response.
   B. Determine if there was exposure to an antigen.
   C. Advise observation of the person for 2 hours for any sign of anaphylaxis.
   D. Advise notification of the parent/guardian in the case of a minor.

2. If the school nurse determines that the victim is having signs of anaphylaxis, she will administer epinephrine immediately following approved procedure.

   The school nurse will call 911 and make arrangements for any person who receives epinephrine to be transported by EMS to the nearest emergency room. The school nurse may give epinephrine every 5 minutes if the victim continues to show symptoms of anaphylaxis.

Prescribed Dosages for Epinephrine:

Auto-Injector Formulations

a) Epinephrine 0.3 mg via auto-injector for individuals weighing 66 pounds or greater.

b) Epinephrine 0.15 mg via auto-injector for individuals weighing 33–66 pounds

Intranasal Formulations

c) Epinephrine 2 mg via intranasal spray for individuals weighing 66 pounds or greater.

d) Epinephrine 1 mg via intranasal spray for individuals weighing 33–66 pounds

The school nurse will select and administer the appropriate dosage and route of epinephrine administration based on the individual's weight and the available product.

06/15/2026
Date

Dr. Nancy Bizzell, M.D.
Medical Consultant
Union County Public Schools