



STATE OF NEW YORK DEPARTMENT OF HEALTH

Corning Tower The Governor Nelson A. Rockefeller Empire State Plaza Albany, New York 12237

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

May 31, 2000

Dear EMS Provider:

In 1999, Governor Pataki signed the Epinephrine Auto-Injector Device Law (Chapter 578 of the Laws of 1999), which permits the possession and use of epinephrine auto-injectors by non-certified and non-licensed personnel, as well as health care providers certified at the level that would not normally allow for administration of medication. These providers include emergency medical technicians (EMTs) and Certified First Responders (CFRs).

The intent of this law is to make available rapid intervention for those who suffer an anaphylaxis and may not have access to advanced emergency medical care in the short time frame necessary to avoid undue morbidity and mortality. The Department of Health strongly encourages all basic life support (BLS) services to participate in this program. To use epinephrine auto-injectors, services must follow the guidelines provided in the enclosed materials.

The New York State BLS Protocol and the EMT-B curriculum have been amended to include this life-saving measure for participating BLS services. A stand-alone curriculum has also been developed that can be used with the oversight of a physician or a hospital through a collaborative agreement. If your service currently has a medical director, they may be used to meet the program requirements.

Enclosed are documents that will assist you in meeting the requirements necessary to participate in the Epinephrine Auto-injector Program. These materials include the following:

- DOH Policy Statement (00-01)
- Notice of Intent Form (DOH-4188)
- Amended EMT-B Curriculum
- BLS Epinephrine Auto-Injector Protocol
- DOH approved training module for use of epinephrine auto-injectors
- BLS Fact Sheet

Please direct your questions concerning the Epinephrine Auto-Injector Program to the following Bureau of Emergency Medical Services staff:

Program Issues

Ross R. Zastrow
Sr. EMS Representative
518-402-0996, Ext. 1,4

Thank you for your continued service and interest in this program.

Sincerely,

A handwritten signature in black ink that reads "Edward G. Wronski". The signature is written in a cursive style with a distinct flourish at the end.

Edward G. Wronski
Director
Bureau of Emergency Medical Services

Enclosures



DOH
New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates:

No. 00 - 01

Date: 4/10/00

Re:

**Use of
Epinephrine
Auto Injectors By EMS
Agencies**

Page 1 of 2

BACKGROUND

The purpose of this policy is to explain the provisions of Chapter 578 of the Laws of 1999 authorizing the use of an epinephrine auto injector device by certain individuals in ambulance and advanced life support services and childrens' overnight, summer day or traveling camps. This change in the law is designed to encourage greater acquisition and use of epinephrine auto injectors in communities across the state in an effort to reduce the number of deaths associated with anaphylaxis from increased sensitivity to insects and certain food substances.

AUTHORIZATION

To be authorized to possess and use an epinephrine auto injector under this statute an individual or organization as defined above needs to make specific notification of intent to the local Regional Emergency Medical Services Council (REMSCO) and the Department of Health (DOH). *There are no approvals or certifications required.*

To be authorized to possess and use an epinephrine auto injector:

- Identify a physician or hospital knowledgeable and experienced in emergency cardiac care to serve as "emergency health care provider (EHCP)" and participate in a collaborative agreement. (This may be the EMS service's medical director)
- Complete a training course approved by the Commissioner of Health (Attachment 1).
- Develop with the EHCP, a written collaborative agreement which shall include at least the following:
 - written practice protocols for the use of the epinephrine auto injector;
 - written policies and procedures for the training of authorized users;
 - notice to the EHCP of the use of the epinephrine auto injector;
 - documentation of the use of the epinephrine auto injector;
 - written policy and procedure for acquisition, storage, accounting, and proper disposal of used auto-injectors.
- Provide written notice to 911 and/or the community equivalent ambulance dispatch entity of the availability of epinephrine auto injectors at the organization's location.
- File with the REMSCO serving the area a copy of the "Notice of Intent to Possess and use an Epinephrine Auto Injector (DOH-4188) along with a signed copy of the Collaborative Agreement.
- File a new Collaborative Agreement with the REMSCO if the EHCP changes or with a change in content of the agreement.

REMSCO Actions

REMSCOs must develop a procedure for the following:

- insure that a copy of the organization's "Notice of Intent ... (DOH-4188)" is forwarded to the Bureau of EMS.
- maintain a copy of the "Notice of Intent... (DOH-4188) and the Collaborative Agreement.

There are no approvals or certifications required by the REMSCO.

Authorized:

Edward G. Wronski
Director

Notice of Intent to Provide Epinephrine Auto-Injector

Original Notification Update

Entity Providing Epinephrine Auto-Injectors

Name of Entity (ambulance service, ALSFR, BLSFR, children's camp, school, other)		Agency ID ()
Name of Primary Contact Person		Telephone Number ()
Address	County	Fax Number
	NY	
City	State	E-Mail Address
	Zip	

Type of Entity (please check the appropriate box)

- Day Camp Traveling Day Camp Overnight Camp Ambulance Service ALSFR Agency BLSFR Agency School
Check all that apply: Nurses Office, Premises, or Infirmary Off-Site Trips/Events Other _____

Emergency Health Care Provider

Name of Emergency Health Care Provider (Physician)		NYS License #	()
Email			Telephone Number ()
Address			Fax Number
	NY		
City	State	Zip	

Number of Providers Trained to Use Auto Injector: _____

Minimum Number of Injectors to be Maintained On-Site: _____ Adult _____ Pediatric

Maximum Number of Injectors to be Maintained On-Site: _____ Adult _____ Pediatric

Authorization Names and Signatures

CEO/COO, Camp Director or Administrator (Please print)	Signature	Date
Physician (Please print)	Signature	Date

Complete and sign this form and submit the original to the appropriate Regional Emergency Medical Services.

Revised 03/29/00 Epinephrine auto-injector

Medical / Behavioral and
Obstetrics / Gynecology

Lesson 4-1
General Pharmacology

OBJECTIVES

Objectives Legend

C= Cognitive P = Psychomotor A = Affective

1 = Knowledge level

2 = Application level

3 = Problem-solving level

COGNITIVE OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:

- 4-1.1 Identify which medications will be carried on the unit.(C-1)
- 4-1.2 State the medications carried on the unit by the generic name. (C-1)
- 4-1.3 Identify the medications with which the EMT-Basic may assist the patient with administering. (C-1)
- 4-1.4 State the medications the EMT-Basic can assist the patient with by the generic name.(C-1)
- 4-1.5 Discuss the forms in which the medications may be found. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:

- 4-1.6 Explain the rationale for the administration of medications.(A-3)

PSYCHOMOTOR OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:

- 4-1.7 Demonstrate general steps for assisting patient with self-administration of medications.(P-2)
- 4-1.8 Read the labels and inspect each type of medication.(P-2)

Preparation

Motivation: Later in this course the EMT-Basic student will be learning specific medications which may be administered to a patient who has his own prescribed medication for a specific medical condition.

Some medications may be administered by the EMT-Basic when there are patients with specific chief complaints. Giving the proper medication in an emergency situation is critical to the well-being of the patient.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to general pharmacology. The continuous design and development of new audio-visual materials relating to EMS requires careful review to determine which best meet the needs of the program. Materials should be edited to assure meeting the objectives of the curriculum.

EMS Equipment: None

PERSONNEL

Primary Instructor: Advanced-level provider who has administered medications.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in general pharmacology.

Recommended Minimum Time to Complete: One hour

PRESENTATION

Declarative (What)

- I. Overview - the importance of medications and the dangers associated with their administration.
- II. Medications (which may be carried on the EMS unit)
 - A. Activated Charcoal - learned as a part of the poison/overdose module (4-6)
 - B. Syrup of Ipecac - learned as a part of the poison/overdose module. (4-6)
 - C. Oral Glucose - learned as a part of the diabetes module (4-4).
 - D. Oxygen (refer to airway module).
 - E. Epinephrine - learned as a part of the allergies module (4-5).
- III. Medications (prescribed by a physician and the patient has them in his possession; they are not carried on the EMS unit. May assist patients in taking, with approval by medical direction).
 - A. Inhaler - learned as a part of the respiratory module (4-2).
 - B. Nitroglycerin - learned as a part of the cardiac module (4-3).
- IV. Medication names
 - A. Generic
 1. The name listed in the U.S. Pharmacopedia, a governmental publication listing all drugs in the U.S.
 2. Name assigned to drug before it becomes officially listed. Usually a simple form of the chemical name.
 3. Give examples per local protocol.
 - B. Trade
 1. Brand name is the name a manufacturer uses in marketing the drug.
 2. Give examples.
- V. Indications - the indication for a drug's use includes the most common uses of the drug in treating a specific illness.
- VI. Contraindications - situations in which a drug should not be used because it may cause harm to the patient or offer no effect in improving the patient's condition or illness.
- VII. Medication Form
 - A. Medications the EMT-Basic carries on the unit or medications that a patient may have a prescription for that the EMT-Basic may assist with administration.
 1. Compressed powders or tablets - nitroglycerin
 2. Liquids for injection - epinephrine
 3. Gels - glucose
 4. Suspensions - activated charcoal
 5. Fine powder for inhalation - prescribed inhaler
 6. Gases - oxygen
 7. Sub-lingual spray - nitroglycerin
 8. Liquid/vaporized fixed dose nebulizers
 - B. Each drug is in a specific medication form to allow properly controlled concentrations of the drug to enter into the blood stream where it has an effect on the target body system.
 - C. Medications have a specific shelf life and expiration dates.
- VIII. Dose - state how much of the drug should be given.
- IX. Administration - state route by which the medication is administered such as oral, sublingual (under the tongue), injectable, or intramuscular.

- X. Actions - state desired effects a drug has on the patient and/or his body systems.
- XI. Side Effects - state any actions of a drug other than those desired. Some side effects may be predictable.
- XII. Re-assessment strategies
 - A. Repeat vital signs.
 - B. Must be done as part of the on-going patient assessment.
 - C. Documentation of response to intervention.

SUGGESTED APPLICATION

Procedural (How)

Demonstrate reading labels and inspecting each medication that will be carried on the unit or assisted with by the patient.

Contextual (When, Where, Why)

For years the primary medication used by the EMT was oxygen. The EMT-Basic may have activated charcoal, syrup of Ipecac, oral glucose and an epinephrine auto-injector on the unit to administer with medical direction. In addition, the EMT-Basic will be able to assist patients with several medications, again under the supervision of medical direction.

This pharmacology lesson will assist you in understanding basic components for each of the medications. In later lessons, you will obtain additional knowledge and skills concerning their administration.

STUDENT ACTIVITIES

Auditory (Hear)

1. The student will hear information on medications they will use on the EMS unit.

Visual (See)

1. The student will see each type of medication they will use on the EMS unit.

Kinesthetic (Do)

1. The student will practice inspecting and reading the labels of each type of medication they will use on the EMS unit.

INSTRUCTOR ACTIVITIES

Supervise student practice.

Reinforce student progress in cognitive, affective, and psychomotor domains.

Redirect students having difficulty with content (complete remediation forms).

EVALUATION

Written: Develop evaluation instruments, e.g., examinations, verbal reviews, handouts, to determine if the students have met the cognitive and affective objectives of this lesson.

Practical: Evaluate the actions of the EMT-Basic students during role play, practice or other skill stations to determine their compliance with the cognitive and affective objectives and their mastery of the psychomotor objectives of this lesson.

REMEDIATION

Identify students or groups of students who are having difficulty with this subject content. Complete remediation sheet from the instructor's course guide.

SUGGESTED ENRICHMENT

What is unique in the local area concerning this topic? Complete enrichment sheets from the instructor's course guide and attach with lesson plan.

Revised 03/29/00 Epinephrine auto-injector

Medical / Behavioral and
Obstetrics / Gynecology

Lesson 4-5
Allergies

OBJECTIVES

Objectives Legend

C= Cognitive P = Psychomotor A = Affective

1 = Knowledge level

2 = Application level

3 = Problem-solving level

COGNITIVE OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:

- 4-5.1 Recognize the patient experiencing an allergic reaction.(C-1)
- 4-5.2 Describe the emergency care of the patient with an allergic reaction.(C-1)
- 4-5.3 Establish the relationship between the patient with an allergic reaction and airway management.(C-3)
- 4-5.4 Describe the mechanisms of allergic response and the implications for airway management.(C-1)
- 4-5.5 State the generic and trade names, medication forms, dose, administration, action, and contraindications for the epinephrine auto-injector.(C-1)
- 4-5.6 Evaluate the need for medical direction in the emergency medical care of the patient with an allergic reaction.(C-3)
- 4-5.7 Differentiate between the general category of those patients having an allergic reaction and those patients having an severe allergic reaction (anaphylaxis) requiring immediate medical care, including immediate use of epinephrine auto-injector.(C-3)

AFFECTIVE OBJECTIVES

- 4-5.8 Explain the rationale for administering epinephrine using an auto-injector.(A-3)

PSYCHOMOTOR OBJECTIVES

- 4-5.9 Demonstrate the emergency medical care of the patient experiencing an allergic reaction and anaphylaxis (P-1,2)
- 4-5.10 Demonstrate the use of epinephrine auto-injector.(P-1,2)
- 4-5.11 Demonstrate the assessment and documentation of patient response to an epinephrine injection.(P-1,2)
- 4-5.12 Demonstrate proper disposal of equipment.(P-1,2)
- 4-5.13 Demonstrate completing a prehospital care report for patients with allergic emergencies.(P-2)

PREPARATION

Motivation: The ability to recognize and manage a severe allergic reaction (anaphylaxis) is possibly the only thing standing between a patient and imminent death.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to allergic emergencies. The continuous design and development of new audio-visual materials relating to EMS requires careful review to determine which best meet the needs of the program. Materials should be edited to assure meeting the objectives of the curriculum.

EMS Equipment: Epinephrine auto-injector, epinephrine auto-injector trainer, synthetic skin mannequin for injection.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in the physiology of severe allergic reactions and the use of epinephrine auto-injectors.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in allergic emergencies.

Recommended Minimum
Time to Complete: Two hours

PRESENTATION

Declarative (What)

- I. Allergic Reactions and Severe Allergic Reactions (Anaphylaxis)
 - A. Definition - an exaggerated immune response to any substance.
 - B. Possible causes
 1. Insect bites/stings -e.g., bees, wasps
 2. Food - e.g., nuts, seafood, peanuts
 3. Plants
 4. Medications
 5. Others
 - C. Assessment findings may include:
 1. Skin
 - a. Patient may state he has a warm tingling feeling in the face, mouth, chest, feet and hands.
 - b. Itching
 - c. Hives
 - d. Flushed skin
 - e. Swelling to face, neck, hands, feet and/or tongue
 2. Respiratory system
 - a. Patient may state he feels a tightness in his throat/chest.
 - b. Cough
 - c. Rapid breathing
 - d. Labored breathing
 - e. Noisy breathing
 - (1) Stridor
 - (2) Wheezing
 - f. Hoarseness
 3. Cardiac
 - a. Increased heart rate
 - b. Decreased blood pressure
 4. Generalized findings
 - a. Itchy, watery eyes
 - b. Headache
 - c. Sense of impending doom
 - d. Runny nose
 5. Decreasing mental status
 6. Assessment findings that reveal shock (hypoperfusion) or respiratory distress indicate the presence of a severe allergic reaction (anaphylaxis).

Note: Anaphylaxis can be a potentially life threatening situation most often associated with history of exposure to an inciting agent/allergen (bee sting or other insect venom, medications/drugs, or foods such as peanuts, seafood, etc.) and physical reactions ranging from mild skin rashes to catastrophic multisystem failure and/or death. The presence of respiratory distress (upper airway obstruction, lower airway disease/sever bronchospasm) and/or cardiovascular collapse/hypotensive shock characterize the clinical findings that authorize and require treatment according to this protocol.

- D. Emergency medical care of severe allergic reactions (anaphylaxis).
1. Determine that the patient's history includes a history of anaphylaxis, severe allergic reactions **and/or** recent exposure to an allergen or inciting agent.
 - a. Perform initial assessment.
 - b. Perform focused history and physical exam.
 - (1) History of allergies.
 - (2) What was patient exposed to.
 - (3) How were they exposed.
 - (4) What effects.
 - (5) Time of onset.
 - (6) Progression.
 - (7) Interventions.
 - c. Assess baseline vital signs and SAMPLE history.
 2. Administer high concentration oxygen.
 3. Assess the cardiac and respiratory status of the patient.
 - a. If **both** the cardiac and respiratory status of the patient are normal, transport the patient, reassessing the patient's condition frequently during the transport.
 - b. If **either** the cardiac or respiratory status of the patient is **abnormal** proceed as follows:
 - (1) If the patient is having severe respiratory distress **or** shock **and** has been prescribed an epinephrine auto-injector, assist the patient in administering the epinephrine. If the patient's auto-injector is not available or expired, and the EMS agency carries an epinephrine auto-injector, administer the epinephrine as authorized by the agency's medical director.
 - (2) If the patient has not been prescribed an epinephrine auto-injector, begin transport and contact medical control for authorization to administer the epinephrine auto-injector, if available.

- (a) **In the event that you are unable to make contact with medical control (radio failure, no communications) and the patient is under 35 years of age, you may administer the epinephrine auto injector as indicated. The incident should be reported to Medical Control or your Agency Medical Director as soon as possible.**
- (b) **The pediatric dose for epinephrine is 0.01 mg/kg, up to 0.3 mg. For patients under 9 years of age or weighing less than 30 kg (66 lbs.) the pediatric epinephrine auto-injector (0.15 mg) should be used.**

- (3). If the patient has already received a dose of epinephrine, begin transport and contact medical control for authorization for a second administration of the epinephrine auto-injector, if needed.
- (4). Refer immediately to the appropriate Respiratory Arrest, Respiratory Distress, Obstructed Airway or Shock protocol.

- 3. If cardiac arrest occurs, perform CPR according to AHA/ARC standards.
- 4. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report.

II. Relationship to Airway Management

- A. These patients may initially present with airway/respiratory compromise or airway/respiratory compromise may develop as the allergic reaction progresses.
- B. The airway should be managed according to the principles identified in the airway management lesson presented earlier.

III. Medications

- A. Epinephrine auto-injector
 - 1. Medication name
 - a. Generic - Epinephrine
 - b. Trade - Adrenalin
 - 2. Indications - must meet the following three criteria:
 - a. Emergency medical cares for the treatment of the patient exhibiting the assessment findings of a severe allergic reaction (anaphylaxis).
 - b. Medication is prescribed for this patient by their physician, you are directed to administer the medication by Medical Control or you are unable to contact Medical Control and epinephrine is indicated.
 - c. Administration of medication is authorized by the Regional Medical Advisory Committee or a physician (Emergency Health Care Provider).
 - 3. Contraindications - no contraindications when used in a life-threatening situation involving an anaphylactic reaction with respiratory distress or shock.
 - 4. Medication form - liquid administered via an automatically injectable needle and syringe system.
 - 5. Dosage
 - a. Adult - one adult auto-injector (0.3 mg)
 - b. Infant and child - under 9 years old or less than 30 kg (66 lbs.) one infant/child auto-injector (0.15 mg)
 - 6. Administration
 - a. Obtain order from medical direction either on-line or protocol.
 - b. Obtain patient's prescribed auto-injector if available.
 - (1) Ensure that the prescription is written for the patient experiencing allergic reaction.
 - (2) Ensure that the medication is not discolored.

Note: If the patient's auto-injector is not available and the EMS unit has an epinephrine auto-injector, administer the epinephrine as authorized by the Agency's Medical Director.

- c. Remove safety cap from the auto-injector.
 - d. Place tip of auto-injector against the patient's thigh.
 - (7) Lateral portion of the thigh.
 - (8) Midway between the waist and the knee.
 - e. Push the injector firmly against the thigh until the injector activates.
 - f. Hold the injector in place until the medication is injected.
 - g. Record activity and time.
 - h. Dispose of injector in biohazard container.
7. Actions
- a. Dilates the bronchioles.
 - b. Constricts blood vessels.
8. Side effects
- a. Increases heart rate
 - b. Pallor
 - c. Dizziness
 - d. Chest pain / Sudden Death
 - e. Headache
 - f. Nausea
 - g. Vomiting
 - h. Excitability, anxiousness
9. Re-assessment strategies
- a. Transport.
 - b. Continue focused assessment of airway, breathing and circulatory status.
 - (1) Patient condition continues to worsen.
 - (a) Decreasing mental status
 - (b) Increasing breathing difficulty
 - (c) Decreasing blood pressure
 - (d) Obtain medical direction
 - (e) Prepare to initiate Basic Cardiac Life support measures.
 - CPR
 - AED
 - ACLS intercept
 - (2) Provide supportive care.
 - (a) Oxygen
 - (b) Treat for shock (hypoperfusion).

SUGGESTED APPLICATION

Procedural (How)

The instructor will demonstrate the following steps using an epinephrine auto-injector trainer and appropriate synthetic skin mannequin:

1. Obtain medical direction online or protocol.
2. Obtain patient's prescribed auto injector. Ensure:
 - a. Prescription is written for the patient experiencing allergic reactions.
 - a. Medication is not discolored.
3. Remove safety cap from the auto-injector.
4. Place tip of auto-injector against the patient's thigh.
 - a. Lateral portion of the thigh.
 - b. Midway between the waist and the knee.
5. Push the injector firmly against the thigh until the injector activates.
6. Hold the injector in place until the medication is injected.
7. Dispose of injector in biohazard container.

Contextual (When, Where, Why)

The EMT-Basic will now be able to administer epinephrine auto-injectors. This will make a significant difference in those patients exposed having a severe allergic reaction (anaphylaxis).

The administration of the epinephrine should be performed as soon as possible following appropriate identification of a severe allergic reaction (anaphylaxis).

STUDENT ACTIVITIES

Auditory (Hear)

1. The student should hear the assessment findings differentiating minor and severe allergic reactions (anaphylaxis).
2. The student should hear the steps required to appropriately administer epinephrine using an auto-injector.

Visual (See)

1. The student should see various audio-visual aids or materials showing the assessment findings relative to minor allergic reactions.
2. The student should see an actual epinephrine auto-injector.
3. The student should see the instructor demonstrate the appropriate steps in using an auto-injector.
4. The student should see various audio-visual aids or materials showing the assessment findings of major allergic reactions and the appropriate use of the auto-injector.

Kinesthetic (Do)

1. The student should practice the correct way to use an epinephrine auto-injector.
2. The student should practice role-play treatment of a patient experiencing a severe allergic reaction (anaphylaxis).
3. The student should practice re-assessment and documentation relative to the use of a epinephrine auto-injector.

INSTRUCTOR ACTIVITIES

Supervise student practice.

Reinforce student progress in cognitive, affective, and psychomotor domains.

Redirect students having difficulty with content (complete remediation forms).

EVALUATION

Written: Develop evaluation instruments, e.g., examinations, verbal reviews, handouts, to determine if the students have met the cognitive and affective objectives of this lesson.

Practical: Evaluate the actions of the EMT-Basic students during role play, practice or other skill stations to determine their compliance with the cognitive and affective objectives and their mastery of the psychomotor objectives of this lesson.

REMEDIATION

Identify students or groups of students who are having difficulty with this subject content. Complete remediation sheet from the instructor's course guide.

SUGGESTED ENRICHMENT

What is unique in the local area concerning this topic? Complete enrichment sheets from the instructor's course guide and attach with lesson plan.

Anaphylactic Reactions With Respiratory Distress or Hypoperfusion

Note:

**Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.**

- I. Assure that the patient's airway is open and that breathing and circulation are adequate. Suction as necessary.
- II. Administer high concentration oxygen.

Note:

In pediatric patients, maintain a calm approach to both parent and child. Allow the child to assume and maintain a position of comfort or to be held by the parent/guardian, preferably in an upright position.

- III. Determine that the patient has a diagnosed history of anaphylaxis, severe allergic reactions, **and/or** a recent exposure to an allergen or inciting agent.
- IV. If cardiac and respiratory status is normal, transport the patient while performing frequent ongoing assessments.
- V. If **either** cardiac or respiratory status are abnormal, proceed as follows:
 - A. If the patient is having severe respiratory distress **or** hypoperfusion **and** has been prescribed an epinephrine auto injector, **assist** the patient in administering the epinephrine. If the patient's auto injector is not available or is expired, and the EMS agency carries an epinephrine auto injector, **administer** the epinephrine as authorized by the agency's medical director.
 - B. If the patient has not been prescribed an epinephrine auto injector, begin transport and contact Medical Control for authorization to administer epinephrine if available.
- VI. Contact Medical Control for authorization for a second administration of the epinephrine auto injector, if needed.
- VII. Refer immediately to any other appropriate protocol.
- VIII. If cardiac arrest occurs, perform CPR according to AHA/ARC/NSC standards and refer to the Cardiac Arrest Protocol.

Anaphylactic Reactions, continued

- IX. Transport immediately.
- X. Ongoing assessment. Obtain and record the patient's initial vital signs, repeat enroute as often as the situation indicates. **Be alert for changes in the patient's level of consciousness.**
- XI. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).
- XII. If epinephrine has already been administered, continue to reassess respiratory effort and vital signs, transport immediately.

NEW YORK STATE DEPARTMENT OF HEALTH

BUREAU OF EMERGENCY MEDICAL SERVICES

EPINEPHRINE AUTO-INJECTOR PROGRAM

BLS PROGRAM REQUIREMENTS

PROGRAM REQUIREMENTS

PROGRAM PARTICIPANTS

- A licensed health care provider;
- A camper, if he/she has proof of his/her own prescription; and
- Children's camp employees designated by the camp director and the camp's emergency health care provider and who has passed a training program approved by the New York State Department of Health on the use of the auto-injector.

BLS PROGRAM PARTICIPATION

Basic Life Support (BLS) prehospital services may participate in this program if the following requirements are met:

- Identify a physician or hospital to serve as the BLS service's emergency health care provider;
- Develop, sign and implement an agreement between the BLS service and the emergency health care provider; this must include written practice protocols and policies for use of the auto-injector;
- Train CFRs/ EMT-Bs as outlined in the agreement, and maintain a record of those trained with training dates, training refresher dates, and curriculum followed;
- Provide written notice to the local Emergency Medical Services (EMS) System dispatch center that an auto-injector will be available through the BLS service;
- File a Notice of Intent with the local Regional EMS Council (REMSCO) and attach a copy of the agreement with the emergency health care provider; and
- Notify and file a new agreement with REMSCO when there is a change in the agreement and/or emergency health care provider.

PRACTICE PROTOCOLS AND POLICIES

The Practice Protocols and Policies must include the following:

- The curriculum used to train authorized individuals ; the curriculum must be approved by the Commissioner of Health;
- Designation of individual(s) by the emergency health care provider who will conduct the training of authorized staff;
- Designation of staff to be trained to use, acquire and dispose of the auto-injector;
- Use of the auto-injector for pediatric and adult patients;
- Use of the auto-injector for cases with known history of allergy and for those individuals presenting with no known history of allergy;
- A plan of action when an auto-injector is used, including notification as requested by the emergency health care provider and/or medical control, and disposal of the auto-injector in accordance with OSHA regulation 29CFR 1910.1030; and
- A procedure for obtaining, storing and accounting for the medication. It is the responsibility of the emergency health care provider to purchase and distribute the auto-injector for the prehospital care providers.

MEDICAL CONTROL

Separate policies and protocols must be established for the administration of epinephrine auto-injectors for those individuals with known prior history of allergy and for those individuals presenting without known prior history. In the first case, CFRs/EMT-Bs may administer epinephrine auto-injectors without contact of medical control and/or emergency health care providers.

The BLS ambulance service should contact medical control and/or emergency health care provider to administer epinephrine auto-injector to an individual exhibiting symptoms of anaphylactic reaction who do not have a prior history of such reaction. In the event, contact can not be made with medical control and/or the emergency health care provider; the BLS service may use the auto-injector while continuing to obtain appropriate medical control.

In all cases, the decision to administer a second dose of epinephrine must be authorized through medical control.

CHILDREN'S CAMPS

It is anticipated that children's camps will begin to participate in the Epinephrine Auto-Injector Program during summer 2000. Camps have been encouraged to notify their local EMS providers if they elect participate in the program. If they participate in the program, they must also have a collaborative agreement with an emergency health care provider and train designated staff using a Department of Health approved curriculum.

Information about participating children's camps may be obtained from your REMSCO and/or county Department of Health.

Summer 2000

NEW YORK STATE DEPARTMENT OF HEALTH BUREAU OF EMERGENCY MEDICAL SERVICES

TRAINING PROGRAM OUTLINE FOR UNLICENSED OR UNCERTIFIED PERSONNEL TO ADMINISTER EPINEPHRINE BY AUTO-INJECTOR IN LIFE-THREATENING SITUATIONS

- PURPOSE:** To provide unlicensed or uncertified personnel with the basic knowledge and skills to administer epinephrine by auto-injector in a life-threatening situation. (For the purpose of this outline, "unlicensed or uncertified personnel" is defined as individuals who do not have a license or certification that allows them to administer prescribed medications.)
- INSTRUCTOR:** The Physician (Emergency Health Care Provider) or his/her designee should teach this program.
- OBJECTIVES:** Upon completion of the training the participants will be able to demonstrate the following competencies:
1. identify common causes of allergic emergencies;
 2. identify the signs and symptoms of a severe allergic reaction (anaphylaxis), and how they differ from other medical conditions;
 3. describe how to quickly access the Emergency Medical Services System (call 911 or appropriate emergency number);
 4. list the steps for administering epinephrine by an auto-injector;
 5. describe the methods for safely storing and handling epinephrine and appropriately disposing of the auto-injector after use;
 6. list the steps for providing for on-going care of the patient until EMS arrives;
 7. understand the state regulations that allow an individual to possess and use an epinephrine auto-injector in a life-threatening situation.

What are the most common causes of an allergic reaction?

A wide variety of different substances can cause allergic reactions in people. Some of the most common causes include:

- ✓ Venom from insect bites and stings, especially those of bees, wasps, hornets, and yellow jackets;
- ✓ Foods, including nuts, shellfish/crustaceans, peanuts, milk, eggs, chocolate, etc;
- ✓ Plants, including contact with poison ivy, poison oak, and pollen from ragweed and grasses;
- ✓ Medications, including penicillin and other antibiotics, aspirin, seizure medications, muscle relaxants, etc;
- ✓ Other causes include dust, latex, glue, soaps, make-up, etc.

What are the signs and symptoms of an allergic reaction?

Allergic reactions can range from the watery eyes and runny nose of hay fever to severe breathing problems (respiratory distress) and low blood pressure (hypoperfusion).

Physical findings that may indicate an allergic reaction include any of those listed below.

Generalized symptoms: Itchy, watery eyes, headache, or runny nose.

Skin: Swelling of the face, lips, tongue, neck, or hands. Itching, hives or red skin (flushing).

Breathing Problems: Cough, rapid breathing, difficulty breathing, noisy breathing, change in voice or loss of voice (hoarseness), high pitched noise during inhalation (stridor), or wheezing. **Serious breathing problems (severe respiratory distress) is a sign that the individual is having a severe allergic reaction (Anaphylaxis).**

Heart (Circulation) Problems: Increased heart rate, decreased blood pressure, or signs of cool, clammy skin (hypoperfusion).

Mental Status: Confusion, fainting or loss of consciousness.

How can I tell it is a "severe allergic reaction" that needs the epinephrine auto-injector?

You may need to administer epinephrine with the auto-injector if a patient, who has a history of allergies/allergic reactions, has come in contact with a substance(s) that causes the allergic reaction. If the patient has been prescribed an epinephrine auto-injector and is having a very hard time breathing (**severe respiratory distress**), you will need to administer the epinephrine. For other cases (i.e., someone who has not been prescribed an epinephrine auto-injector) you should consult with the physician (Emergency Health Care Provider).

Does the epinephrine come in more than one size or dose?

Yes, the epinephrine auto-injector comes in both an adult dose (0.3 mg) and a pediatric dose (0.15 mg). Generally the adult dose is for individuals who weigh 66 lbs. or more and the pediatric dose is for individuals who weigh 33 -66 lbs. You must consult with your physician (Emergency Health Care Provider) about which auto-injector is most appropriate to carry and use in your situation.

If someone has a severe allergic reaction what should I do first?

First have someone **CALL 911** or your local emergency number and request an ambulance! It is very important to activate your local Emergency Medical Services (EMS) Agency right away. The patient with a severe allergic reaction may require additional Advance Life Support (ALS) medications or other emergency life-saving procedures. All patients who receive the epinephrine must have immediate follow-up evaluation by a physician.

How do I administer the epinephrine with the auto-injector?

Sit the patient down and try to calm and reassure him/her. If the patient is confused, disoriented, or unconscious (altered mental state) and signs of a weak, rapid pulse, cool clammy skin (hypoperfusion), lay him/her down and slightly elevate his/her feet. If oxygen is available, and someone is trained in its use, administer a high concentration of oxygen. **If the patient is having a hard time breathing administer the epinephrine as follows:**

Step One Remove the safety cap from the auto-injector. Check to see if the fluid is clear and colorless. **Never put your fingers over the black tip when removing the safety cap or after the safety cap has been removed!**

- Step Two Place the tip of the injector against the patient's bare outer thigh. (Halfway between their waist and the knee)
- Step Three With a quick motion, push the auto-injector firmly against the thigh until the spring-loaded needle is activated. Hold the auto-injector in place for ten (10) seconds.
- Step Four Remove the auto-injector from the thigh and record the time of the injection.
- Step Five Carefully re-insert the unit (without replacing the safety cap) -NEEDLE FIRST- into the carrying tube and re-cap the carrying tube. **Never put your fingers over the black tip after the safety cap has been removed!** Give the tube to the ambulance crew so they know exactly what you have given and can appropriately dispose of it at the hospital. Also provide them with the exact time that you administered the epinephrine.
- Step Six Watch the patient carefully, and keep them calm. Note if the patient gets any better or worse. Be prepared to give CPR if needed.

What will the patient feel when I use the auto-injector The injection itself is relatively painless and the patient may not feel the medication being injected. Soon after the injection the patient should begin to feel the beneficial effects of the drug. The most common changes the patient may feel are a more rapid heartbeat and a slight nervousness. The patient may experience palpitations, sweating, dizziness and a headache.

What information do I need to give EMS? If the epinephrine auto-injector is used, make sure the following information is accurately and concisely conveyed to the EMS Provider and physician:

- ✓ The substance (allergen) the patient was exposed to
- ✓ How long ago the exposure occurred
- ✓ The signs and symptoms the patient experienced (difficulty breathing, tightness in the throat or chest, any swelling, etc.) before the epinephrine was administered
- ✓ The time and dose of the epinephrine administered

- ✓ Did you notice any change(s) in the patient after the epinephrine was administered
- ✓ Other specific information about the patient such as name, age, guardian, physician, medical history, etc.

Where should I keep the epinephrine auto-injector?

You will need to keep the epinephrine auto-injector where you can have quick and easy access to it in an emergency. Keep it away from children. Keep it in the plastic carrying tube it comes in.

It is important to remember that the epinephrine needs to be kept at room temperature. It should not be refrigerated, nor should you allow it to be exposed to extreme heat, such as the glove compartment or trunk of a car during the summer. Do not expose the epinephrine auto-injector to direct sunlight; light and heat can cause epinephrine to degrade, turning brown.

Does the Epinephrine Auto-Injector have an expiration date or need to be replaced?

As with any medication, the epinephrine auto-injector will have an expiration date, which is printed directly on the unit. It is important to periodically check the expiration date and replace the unit before it expires. When checking the expiration date also check to make sure the fluid is clear and colorless. Replace the unit if the fluid is discolored.

Can I be injured by the auto-injector unit?

The auto-injector unit is generally very safe and easy to use. It is important to remember that the unit does have a sharp needle in it. Do not remove the safety cap until you are ready to use the auto-injector. **Never put your fingers over the black tip when removing the safety cap or after the safety cap has been removed.** Do not replace the safety cap once it has been removed. After use carefully re-insert the unit -NEEDLE FIRST - into the carrying tube, then re-cap the carrying tube.

Who can use an epinephrine auto-injector?

For many years physicians have prescribe the epinephrine auto-injector to patients with known allergies. Many people carry the unit with them. Recently Governor Pataki signed into law a bill that authorizes the possession and use of an epinephrine auto-injector by certain individuals in children's overnight, summer day or traveling summer day camps and others.

This allows Camp Staff to administer epinephrine to patients with a history of allergies/allergic reactions who has a severe allergic reaction even if the patient doesn't have his/her prescribed auto-injector with them.

To be authorized to possess and use the epinephrine auto-injector an individual or organization (as noted above) must have a written collaborative agreement with a physician "emergency health care provider" which is filed with the local Regional Emergency Medical Services Council and the Department of Health. All participating individuals must complete this or an equivalent training program.

How is the epinephrine auto-injector obtained?

The Epinephrine Auto-Injector is available at most pharmacies. To purchase the auto-injector you will need a prescription from your participating physician (Emergency Health Care Provider).

For more information:

For more information on the requirements contact the Bureau of Emergency Medical Services:

**New York State Department of Health
Bureau of Emergency Medical Services
433 River Street, Suite 303
Troy, New York 12180
(518) 402-0996**



Web Resources

Food Allergy Resources <http://www.foodallergy.org>

American Academy of Pediatrics <http://www.aap.org>

American College of Allergy, Asthma & Immunology <http://allergy.mcg.edu>

Center for Healthcare Information <http://www.cmrg.com>

Asthma & Allergy Foundation <http://www.aafaflorida.org>

New York State Department of Health <http://www.health.state.ny.us>



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COLLABORATIVE AGREEMENT

Administration of Epinephrine Auto Injectors by EMS Agencies

As per Chapter 578 of the Laws of 1999,

Agency Name: _____
(Hereafter referred to as the Agency)

and

Physician/Hospital: _____
(Hereafter referred to as the Emergency Health Care Provider)

enter into this collaborative agreement in which;

1. The Agency will acquire, store, account, and dispose of Epinephrine Auto Injectors (EAI) according to written policies and procedures which have been developed as required by the New York State Department of Health (NYS DOH) and in accordance with NYS DOH Policy Statement 00-15 "Storage and Safeguarding of Medications Administered by EMT-Bs" and OSHA regulation 29CFR1910.1030;
2. The Agency will ensure that the New York State Basic Life Support Adult and Pediatric Treatment Protocols are utilized by all participating personnel for the proper administration of EAI;
3. The Agency will ensure that EAI will only be administered by authorized Certified First Responders (CFRs) and Emergency Medical Technicians (EMTs) who have successfully completed a training program which includes lesson 4-1 and 4-5 of the NYS DOH EMT – Basic Curriculum;
4. The Agency will require that all EAI administrations are documented appropriately by utilizing the New York State approved Patient Care Report (PCR). Additionally, all EAI administrations will be reported to the Emergency Health Care Provider (EHCP) as appropriate and will be included in the Agency's quality improvement plan that is required by the NYS DOH;
5. The Agency agrees to provide written notice of the Agency's EAI capability to the 911 and/or community equivalent ambulance dispatch entity;
6. The EHCP acknowledges that they are knowledgeable and experienced in emergency cardiac care;
7. The Agency will review this agreement on an annual basis and will file a new Collaborative Agreement with the Hudson Valley Regional EMS Council if the EHCP, or any of the contents of this agreement, changes.

Name of Authorized Agency Representative

Title

Signature

Date

(If EHCP is a Hospital) Name of Authorized Representative

Title

Emergency Health Care Provider's Signature

Date



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Name of Authorized Agency Representative

Title

Signature

Date

(If EHCP is a Hospital) Name of Authorized Representative

Title

Emergency Health Care Provider's Signature

Date