



EMS Information Bulletin- #2

DATE: August 13, 2003

SUBJECT: Epinephrine Auto-Injector Administration by EMTs

TO: Ambulance Services
Quick Response Services

FROM: Emergency Medical Services Office
(717) 787-8740

Epinephrine is a sympathomimetic drug indicated in the emergency treatment of allergic reactions from insect stings or bites, foods, drugs, other allergens and idiopathic anaphylaxis. EMTs are authorized under regulations promulgated by the Department to assist a patient to administer drugs previously prescribed for the patient, as specified by the Statewide BLS treatment protocols. Those protocols permit EMTs to assist patients with the administration of epinephrine by auto-injector when the patient is carrying his or her own prescribed epinephrine.

The Statewide BLS protocols are written to permit an EMT with appropriate training, when functioning with an ambulance service or QRS that meets the requirements to carry epinephrine auto-injectors, and with the approval of the ambulance service or quick response service (QRS) medical director, to use an epinephrine auto-injector to administer epinephrine via subcutaneous or intramuscular routes in accordance with those protocols or medical command orders.

EMTs may only administer epinephrine by auto-injector when following the most current statewide BLS protocol or when directly ordered by a medical command physician. The most up-to-date version of the statewide BLS protocol related to epinephrine auto-injectors will supersede any other guidelines related to the administration of epinephrine auto-injectors.

Service Requirements

The following are requirements for ambulance services and QRS related to the use of epinephrine auto-injectors prior to implementation by the service:

1. The identification of a medical director willing to serve in an oversight capacity in regards to epinephrine auto-injectors.
2. Ability to comply with manufacturers' recommendations for storage and maintenance:
 - a. Store in a dark place at room temperature (59-86 degrees F).

- b. Do NOT refrigerate.
 - c. Do NOT expose to extreme cold or heat.
 - d. Note expiration date on the unit (month and year). Replace before expiration date.
 - e. Examine contents in clear window of the auto-injector monthly.
 - f. Replace the unit if the solution is discolored or contains solid particles (precipitate).
 - g. Protect from prolonged exposure to UV rays.
3. Maintain a supply of two (2) each of adult and pediatric dose epinephrine auto-injectors with the required equipment for the ambulance service or QRS.

Practitioner Requirements

The following are requirements related to the use of epinephrine auto-injectors as it relates to the individual EMT scope of practice:

1. The skill may only be used when an EMT is functioning with an ambulance service or QRS that complies with Department requirements for carrying epinephrine auto-injectors.
2. Only an EMT that has completed the training in the primary use (not patient-assisted) epinephrine auto-injector module through the EMT curriculum or continuing education course # 004124 may use an epinephrine auto-injector.
3. The EMT must be authorized to perform this skill by the ambulance service or QRS medical director for epinephrine auto-injectors.

Ambulance services and QRSs who wish to carry epinephrine auto-injectors, including EMTs who wish to administer them, must contact their regional EMS council for additional information prior to implementation of primary use epinephrine auto-injectors.

**PENNSYLVANIA DEPARTMENT OF HEALTH
EMERGENCY MEDICAL SERVICES OFFICE**

Epinephrine Auto-injector Inspection Checklist

I. GENERAL INFORMATION:

Name of QRS/BLS Ambulance Service: _____ Telephone Number: _____

Address (Primary Headquarters): _____

(Street, Road, etc)

(CITY)

(STATE)

(ZIP)

Date Inspected: _____ Affiliate Number: _____

II. DOCUMENTS/POLICIES:

DOCUMENTS	Present	Deficient	Corrected
Authorized Personnel Roster	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Director's Agreement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training Requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient Care Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monthly Inspection Log	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
QI Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storage Requirements per manufacture's requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contact information for local medical command facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. MEDICAL EQUIPMENT & SUPPLIES:

MEDICAL EQUIPMENT AND SUPPLIES	Present & Operating	Deficient	Corrected
Epinephrine Auto-injector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0.3 mg/0.3 ml of 1:1000 solution for adult use (2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0.15 mg/0.3 ml of 1:2000 solution for pediatric use (2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sharps receptacle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Inspected by: Scott L. Crawford

(Name)

(Signature)

Regional EMS Council: EMSI - 04_____

Date forwarded to EMS Office: _____

**EPINEPHRINE AUTO-INJECTOR TRAINING POLICY
ALLERGIC REACTION / ANAPHYLAXIS**

All members/employees of _____ (service) affiliate number _____ must complete DOH training module #004124 and be familiar with and follow Protocol #201 (Initial Patient Contact, see attachment) and Protocol #411 (Allergic Reaction/Anaphylaxis, see attachment).

Each member/ employee must then be approved by the Medical Director for this service. After approval by this service's Medical Director each EMT will be added to the EpiPen Auto-Injector personnel roster

Each member/employee approved by this service's Medical Director to administer Epinephrine via EpiPen Auto-Injector will participate as requested in this service's Quality Improvement program. This service will also participate in the Regional Council's Quality Improvement program as requested.

President

Date

INITIAL PATIENT CONTACT PROTOCOL #201

Criteria:

A. All patients.

Exclusion Criteria:

A. None

Procedure:

A. Scene Size-Up:

1. Evaluate scene safety – see Protocol # 102.
 - a. If scene is unsafe and cannot be made safe, do not enter.
2. Utilize appropriate Body Substance Isolation / Universal Precautions – see Protocol # 103.
3. Determine Mechanism of injury (MOI) or nature of illness and number of patients.
 - a. Initiate local or regional mass casualty plan if the number of surviving patients exceeds the threshold for initiating such plan (in accordance with applicable regional protocol). Call for additional BLS/ ALS ambulances if needed.
4. Summon ALS or air-medical service if indicated and available.

B. All Patients:

1. If trauma MOI, stabilize cervical spine during assessment.
2. Perform initial assessment. (Form a general impression of the patient; determine the chief complaint and/or life threatening problems; determine responsiveness; assess airway and breathing; assess circulation.)¹
3. Assure open airway; proceed with obstructed airway treatment if needed.
4. If breathing is inadequate, ventilate patient as needed.
5. If pulse-less, proceed to Cardiac Arrest protocol #331
6. If priority condition exists administer high concentration oxygen, treat immediately, and transport with reassessment and treatment by applicable protocol while enroute to the appropriate medical facility.
 - a. Priority conditions are:
 - 1) Unable to obtain open airway
 - 2) Poor general impression
 - 3) Altered mental status and not following commands
 - 4) Difficulty breathing/ inadequate ventilation.
 - 5) Hypoperfusion (Shock).
 - 6) Complicated childbirth
 - 7) Chest pain with SBP < 100
 - 8) Uncontrolled bleeding
 - 9) Severe pain, anywhere
 - a. If no priority condition exists, obtain history (SAMPLE & OPQRST) and perform focused physical exam.
 - 10). Treat and transport per applicable protocol(s).

Notes:

1. If assessment of patient justifies ALS or air-medical care, summon ALS or air ambulance service if available and if not already dispatched. See Indications for ALS Use protocol #210.
2. Administer high concentration oxygen.
3. Determine severity of patient's symptoms
 - a. For severe symptoms listed above:
 - 1) Administer a single unit dose of epinephrine via auto injector. 4, 5, 7
 - a) Adult dose 0.3 mg (e.g. EpiPen)
 - b) Pediatric dose 0.15 mg (e.g. EpiPen Junior)
 - 2) Monitor vital signs and reassess patient
 - 3) Contact Medical Command.
 - b. For moderate symptoms listed above, Contact Medical Command and follow directions of medical command physician.
 4. Monitor vital signs and reassess patient.
 5. Monitor Pulseoximetry, [OPTIONAL],8
 6. Transport.
 7. Contact Medical Command if condition worsens.

Possible Medical Command Orders:

- A. Medical command physician may order administration of another dose of epinephrine.

Notes:

1. Patients with mild allergic reactions should be reassessed for the development of more severe symptoms.
2. Side effects of epinephrine are rare. They include:
 - a. Increased heart rate Vomiting
 - b. Excitability Nausea
 - c. Chest Pain Headache
 - d. Dizziness Anxiousness
 - e. Pallor
3. Use caution in patients over 55 years old. Contact Medical Command if patient does not have severe symptoms as defined above or if unsure whether this is an allergic reaction.
4. Dispose of the injector in a biohazard container.
5. See Pulseoximetry protocol #226. Pulseoximetry is only to be used by BLS personnel that meet DOH Pulseoximetry requirements. If used, Pulseoximetry must not delay the application of oxygen.
Record SpO2 after administration of oxygen. If Pulseoximetry is used and patient does not tolerate NRB mask, EMT may switch to nasal cannula as long as SpO2 remains >95%.

B. All patients treated by an EMT from this service that have been trained to ASSIST a patient with the PATIENTS OWN EpiPen will follow the following protocols.

1. Initial Patient Contact – see Protocol # 201.
 - a. Consider call for ALS if available. See Indications for ALS Use protocol #210.
2. Administer oxygen. (High concentration if difficulty breathing or signs of shock)
3. Determine the severity of the patient's symptoms.
 - a. For severe symptoms listed above:
 - 1) If the patient has a prescribed epinephrine auto-injector, assist² with the administration of single unit dose of epinephrine via auto injector.^{3, 4,5,6,7} [EMT ONLY]
 - a) Adult dose 0.3 mg (e.g. EpiPen)
 - b) Pediatric dose 0.15 mg (e.g. EpiPen Junior)
 - 2) Monitor vital signs and reassess patient.
 - 3) Contact medical command.
 - b. For moderate symptoms listed above:
 - 1) Contact medical command if the patient has a prescribed epinephrine auto-injector.
 4. Monitor vital signs and reassess patient.
 5. Monitor Pulseoximetry, [OPTIONAL].⁸
 6. Transport.

Pennsylvania Department of Health Respiratory Protocol # 411 for BLS Patients both Adult and Peds

1. Initial Patient Contact – see Protocol # 201.
 - a. Consider call for ALS if available. See Indications for ALS Use protocol #210.
 2. Administer high concentration oxygen.
 3. Determine severity of patient's symptoms
 - a. For severe symptoms listed above:
 - 1) Administer a single unit dose of epinephrine via auto injector.^{4, 5, 7}
 - a) Adult dose 0.3 mg (e.g. EpiPen)
 - b) Pediatric dose 0.15 mg (e.g. EpiPen Junior)
 - 2) Monitor vital signs and reassess patient
 - 3) Contact Medical Command.
 - b. For moderate symptoms listed above, Contact Medical Command and follow directions of medical command physician.
 4. Monitor vital signs and reassess patient.
 5. Monitor Pulseoximetry, [OPTIONAL].⁸
 6. Transport.
 7. Contact Medical Command if condition worsens.

Possible Medical Command Orders:

- A. If patient has a second epinephrine auto-injector, medical command physician may order EMT to assist patient with the administration of a second dose of epinephrine.
- B. If BLS service carries epinephrine auto-injector, medical command physician may order administration of epinephrine.

Notes:

1. Patients with mild allergic reactions should be reassessed for the development of more severe symptoms.
2. The EMT may need to administer the medication rather than assist if the patient has a decreased level of consciousness.
3. Assure that the available auto-injector was prescribed for the patient and is not expired.
4. Side effects of epinephrine are rare. They include:
 - Increased heart rate Vomiting
 - Excitability Nausea
 - Chest Pain Headache
 - Dizziness Anxiousness
 - Pallor
5. Use caution in patients over 55 years old. Contact Medical Command if patient does not have severe symptoms as defined above or if unsure whether this is an allergic reaction.
6. If the patient does not have a prescribed epinephrine auto injector, but there is a bystander available with an auto injector, contact medical command.
7. Dispose of the injector in a biohazard container.
8. See Pulseoximetry protocol #226. Pulseoximetry may only be used by BLS services and personnel that meet DOH Pulseoximetry requirements. If used, Pulseoximetry must not delay the application of oxygen. Record SpO₂ after administration of oxygen. If Pulseoximetry is used and patient does not tolerate NRB mask, may switch to nasal cannula as long as SpO₂ remains >95%.



**Medical Director Agreement
FOR
Epinephrine Pen Auto Injector**

- Licensed **BLS Ambulance Service**
- Recognized **QRS Service**

TITLE: Epinephrine Pen Medical Director

RESPONSIBLE TO: Regional Medical Director

PURPOSE POSITION: To provide service-level Epinephrine pen medical direction and quality improvement review of Epinephrine pen activity.

RESPONSIBILITIES:

- Verify that BLS service meets epinephrine auto-injector training requirements.
- Authorize Epinephrine Pen providers and maintain a current roster
- Identify skill maintenance requirements
- Quality Improvement review of EVERY case of epinephrine auto-injector use by an EMT
- Issue script for purchase of Epinephrine pen
- Monitor compliance with monthly reconciliation of Epinephrine Auto-Injector pen

QUALIFICATIONS:

- Currently Pennsylvania licensed* physician - MD or DO
- Board certified in Emergency Medicine/ OR currently certified ACLS provider;
- Approved by the Regional Medical Director.

I, _____, do hereby acknowledge and accept the position of Medical

Director for _____ (*service*) and all responsibilities as listed above.

I authorize EMMCO West, Inc., or its designated agent to verify my compliance with the above information.

(Signature) License Number Date

Current Pennsylvania MD/DO License;
Board Certification in Emergency Medicine; OR
Current AHA ACLS Provider certification.