



# NYC REMAC

Advisory No.	2018-02		
Title:	Syringe Epinephrine for Basic EMTs		
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The Regional Emergency Medical Advisory Committee (REMAC) of New York City is responsible to develop, approve and implement prehospital treatment and transport protocols for use within the five boroughs of the City of New York. The Regional Emergency Medical Advisory Committee (REMAC) of New York City operates under the auspices of Article Thirty of the New York State Public Health Law.

In September 2016, the State Emergency Medical Advisory Committee (SEMAC) and the New York State Emergency Medical Service Advisory Council (SEMSCO) approved Syringe Epinephrine for Emergency Medical Technicians.

NYS DOH BEMS Policy Statement 17-06 is attached. All requirements published in this policy must be followed, with one clarification: Syringe Epinephrine is not limited to anaphylactic reaction, but may be used in-place of Epinephrine Autoinjectors whenever Epinephrine Autoinjectors are in a protocol. The policy also contains links to educational resources that should be used to educate EMT Basic providers.

**Attached are the following updated NYC REMAC Protocols:**

- **407: Wheezing**
- **410: Anaphylactic Reaction**
- **455: Pediatric Anaphylactic Reaction**

**Please distribute to all EMS Providers.** Current and Updated Protocols can be accessed at the Regional EMS Council website: [www.nycremsco.org](http://www.nycremsco.org).

Owners/operators of Ambulance and ALS First Response Services providing prehospital medical treatment within the five boroughs of the City of New York are responsible to provide copies of the NYC REMAC Prehospital Treatment Protocols to their personnel, and to ensure that Service Medical Directors and EMS personnel are informed of all changes/updates to the NYC REMAC Prehospital Treatment Protocols.

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## WHEEZING

For patients over one (1) year of age who are experiencing exacerbation of asthma or wheezing

1. Assess the airway
2. Administer oxygen
3. Monitor breathing

**NOTE: If patient exhibits signs of imminent respiratory failure, refer to protocol #401 – Adult Respiratory Distress/Failure or #450 – Pediatric Respiratory Distress/Failure.**

4. Do not permit physical activity
5. Place the patient in a Fowler's or Semi-Fowler's position
6. Assess the following prior to administration of the first nebulized treatment:
  - Vital signs
  - Patient's ability to speak in complete sentences
  - Accessory muscle use

7. Administer Albuterol Sulfate 0.083%, one (1) unit dose or 3 cc via nebulizer at a flow rate that will deliver the solution over 5 minutes to 15 minutes. Do not delay transport to complete medication administration.

8. Begin transport.

**NOTE: For patients in severe respiratory distress, call for advanced life support assistance. Do not delay transport for any reason, including waiting for a potential second dose of epinephrine.**

9. If symptoms persist, Albuterol Sulfate 0.083% may be repeated twice for a total of three (3) doses, with the third occurring during transport.

10. If the patient is having severe respiratory distress or shock, administer Epinephrine (**one dose only**) via an auto-injector **or IM**.

**NOTE: Patients 9 years of age and older or weighing more than 30 kg (66 lbs) use adult Epinephrine auto-injector **or IM** (0.3 mg); patients younger than 9 years of age or weighing less than 30 kg (66 lbs) use pediatric Epinephrine auto-injector **or IM** (0.15 mg). Administration of epinephrine ~~via auto-injector~~ must be reported to your agency's medical director as soon as possible**

11. Contact On-Line Medical Control for authorization to administer a second dose of Epinephrine, via an auto-injector **or IM**, if needed and if available.

12. Upon completion of patient treatment or transfer of patient care to an ALS Provider or a 911 Receiving Hospital, reassess the patient. See Step # 6.

**NOTE: Medical control must be contacted for any patient refusing medical assistance or transport.**

**NOTE:** Anaphylaxis can be a potentially life-threatening situation most often associated with a history of exposure to an inciting agent/allergen (bee sting or other insect venom, medications/drugs, or foods such as peanuts, seafood, etc.). The presence of respiratory distress (upper airway obstruction [stridor], severe bronchospasm [wheezing]) and/or cardiovascular collapse/hypotensive shock characterize the clinical findings that authorize and require treatment according to this protocol.

Patients 9 years of age and older or weighing more than 30 kg (66 lbs) use adult Epi-auto injector **or IM** (0.3 mg); patients younger than 9 years of age or weighing less than 30 kg (66 lbs) use pediatric Epi-auto injector **or IM** (0.15 mg).

1. Determine that the patient's history includes a history of anaphylaxis, severe allergic reaction and/or recent exposure to an allergen or inciting agent.
2. Request Advanced Life Support assistance. Do NOT delay transport for any reason, including waiting for a potential second dose of epinephrine.
3. Administer high concentration oxygen.
4. Assess the cardiac and respiratory status of the patient.
  - a. If **both** the cardiac and respiratory status of the patient are normal, initiate transport.
  - b. If **either** the cardiac or respiratory status of the patient is **abnormal**, proceed as follows:
    - i. 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 administer Epinephrine via an auto-injector **or IM**.
    - ii. If the patient has not been prescribed an Epinephrine auto-injector, administer Epinephrine (ONE DOSE ONLY) via an auto-injector **or IM**.

**NOTE:** Administration of epinephrine **via auto-injector** must be reported to your agency's medical director as soon as possible

- iii. Contact On-Line Medical Control for authorization to administer a second dose of Epinephrine via an auto-injector **or IM**, if needed and if available.
  - iv. Refer immediately to the REMAC Prehospital Treatment Protocol for Respiratory Distress/Failure (#401), Obstructed Airway (#402), or Shock (#415) as appropriate.
5. If cardiac arrest occurs, refer immediately to the REMAC Prehospital Treatment Protocol for Non-Traumatic Cardiac Arrest (#403).

PEDIATRIC ANAPHYLACTIC REACTION

**NOTE:** Anaphylaxis can be a potentially life-threatening situation most often associated with a history of exposure to an inciting agent/allergen (bee sting or other insect venom, medications/drugs, or foods such as peanuts, seafood, etc.). The presence of respiratory distress (upper airway obstruction [stridor], lower airway disease/severe bronchospasm [wheezing]) and/or cardiovascular collapse/hypotensive shock characterize the clinical findings that authorize and require treatment according to this protocol. This protocol applies to patients under 9 years old or patients weighing less than 30 kg (66 lbs). For patients 9 years of age or older, or over 30 kg (66 lbs) refer to the adult anaphylaxis protocol (#410).

1. Determine that the patient's history includes a history of anaphylaxis, severe allergic reaction and/or recent exposure to an allergen or inciting agent.

**NOTE:** Do not delay transport to the hospital

2. Administer high concentration oxygen.
3. Assess the cardiac and respiratory status of the patient.
4. If **both** the cardiac and respiratory status of the patient are normal, initiate transport.
5. If **either** the cardiac or respiratory status of the patient is **abnormal**, proceed as follows:
6. If the patient is having severe respiratory distress **or** shock **and** has been prescribed a pediatric (0.15 mg) Epinephrine auto-injector, assist the patient in administering the Epinephrine 0.15 mg via an auto-injector. If the patient's auto-injector is not available or expired, administer the Epinephrine, 0.15 mg via autoinjector or IM.
7. If the patient has not been prescribed a pediatric (0.15 mg) Epinephrine auto-injector, begin transport and contact On-Line Medical Control for authorization to administer a pediatric (0.15 mg) Epinephrine auto-injector or Epinephrine, 0.15 mg IM.

**NOTE:** In the event that you are unable to make contact with On-Line Medical Control (radio failure, no communications), you may administer the Epinephrine auto-injector (0.15 mg) or Epinephrine, 0.15 mg IM, if indicated. The incident must be reported to on-line medical control and your agency's medical director as soon as possible.

8. Contact On-Line Medical Control for authorization to administer a second administration of a pediatric (0.15 mg) Epinephrine auto-injector or Epinephrine, 0.15 mg IM, if needed.
9. Refer immediately to the REMAC Prehospital Treatment Protocol for Respiratory Distress/Failure (#450), Obstructed Airway (#451), or Shock (#458) as appropriate.
10. If cardiac arrest occurs, refer immediately to the REMAC Prehospital Treatment Protocol for Non-Traumatic Cardiac Arrest (#453)

**MANDATORY QUALITY ASSURANCE COMPONENT**

For every administration of Epinephrine via auto-injector or Epinephrine, 0.15 mg IM, the ACR/PCR documentation must be reviewed by the service medical director who is responsible for forwarding ACR/PCR data electronically to the NY REMAC for system-wide QA purposes. Patient specific identifiers can be omitted. This QA component is effective immediately. For the purposes of patient confidentiality, email [mdiglio@nycremsco.org](mailto:mdiglio@nycremsco.org) for directions on how to submit data electronically.



Department  
of Health

Bureau of Emergency Medical Services and  
Trauma Systems

### POLICY STATEMENT

Supersedes/Updates: New

No. 17 - 06

Date: May 24, 2017

Re: Syringe Epinephrine  
for Basic EMTs

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Based on the results of a State Emergency Medical Advisory Committee (SEMAC) demonstration project, the New York State Emergency Medical Service Advisory Council (SEMSCO) approved Syringe Epinephrine for Emergency Medical Technicians (Check & Inject NY) at the September 14, 2016 meeting. The project established that EMTs, with the appropriate training may administer the proper dose of epinephrine for a patient experiencing a severe anaphylactic reaction using a specific 1cc syringe. Additionally, the project realized a significant cost saving over maintaining epinephrine auto-injectors.

The Commissioner of Health has approved the addition of Syringe Epinephrine and at the request of the SEMAC, this approval includes the intramuscular administration of 1:1000 epinephrine using a 1cc syringe, a 23 gauge, 1 inch intramuscular safety needle and a single dose 1:1000 epinephrine packaged in a 1mg/ml vial as an addition to the scope of practice for an EMT.

#### Policy

- **Education:**

***Every EMT original, refresher and continuing medical education (CME) certification training program must include the didactic content and psychomotor skills for the administration of 1:1000 epinephrine using a syringe for treating a patient with severe anaphylaxis.***

The NYS EMS Instructional Guidelines have been updated and an Intramuscular Injection Psychomotor Evaluation Tool (practical skills sheet) has been developed to assist EMS course sponsors, Certified Instructor Coordinators (CIC) and EMS agencies in providing initial and ongoing training. An instructor update can be found at <http://vitalsignsconference.com/server/moodle/login/index.php> under "All Courses" in "Instructors" section. The course is entitled "2017 Instructor Update – Epi for EMTs". The education resources are available at: [http://www.health.ny.gov/professionals/ems/national\\_education\\_standards\\_transition/index.htm](http://www.health.ny.gov/professionals/ems/national_education_standards_transition/index.htm) on pages 2 through 4.

- **BLS EMS Agencies**

EMS Agencies intending to implement a Syringe Epinephrine program, in consultation with their medical director, should develop written policies and procedures for the use of Syringe Epinephrine that are consistent with regional policies and protocols. This should include, but not be limited to the following:

- Written policies and procedures requiring an approved training program, requirements for continuing education, maintenance of competencies and the documentation for authorized providers;
- Written policies and procedures requiring for the use of a 1cc syringe, a 23 gauge, 1 inch intra-muscular safety needle and single dose 1:1000 epinephrine packaged in a 1mg/ml vial;
- A description of how the syringes, needles and medication will be kept secure in the vehicles and the station(s);
- A plan for appropriate and safe disposal of medical waste;
- A description of how the medication will be maintained within manufacturer's approved temperature and light ranges; and
- Documentation of an administration and the medical director's plan for quality assurance and appropriateness review of utilization.

Once the EMS service has decided to implement a syringe epinephrine program, the EMS Service must provide the Department with an updated **Medical Director Verification Form (DOH-4362)**.

- **Resources**

Medical Director Verification Form (DOH-4362) – fill-in-able  
<http://www.health.ny.gov/forms/doh-4362.pdf>

Check & Inject NY  
<https://www.mlrems.org/check-inject-ny/check-inject-ny-training-materials>

Anaphylactic Reaction with Respiratory Distress and Hypoperfusion Protocol – M-3  
[http://www.health.ny.gov/professionals/ems/pdf/statewide\\_prehospital\\_treatment\\_protocols\\_v\\_r16-04.pdf](http://www.health.ny.gov/professionals/ems/pdf/statewide_prehospital_treatment_protocols_v_r16-04.pdf)

Emergency Medical Technician Instructional Guidelines – Intramuscular Injections and Psychomotor Evaluation Tool (pages 2 – 4)  
[http://www.health.ny.gov/professionals/ems/national\\_education\\_standards\\_transition/docs/nys\\_emt\\_education\\_standards.pdf](http://www.health.ny.gov/professionals/ems/national_education_standards_transition/docs/nys_emt_education_standards.pdf)