

Training Manual



Check & Inject NY
Syringe Epinephrine Kit for BLS Providers

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Introduction

This manual will provide the necessary outline and guidance to complete all agency training for the Check & Inject NY project.

The instructor should review the lesson plan before delivering the initial training. This will help to ensure that they have all the required materials, have an understanding of all the skills required, and can effectively deliver the material to your providers.

The project was developed and implemented as a New York State Demonstration Project, with approval of the New York State Department of Health Commissioner.

All training material can be located at, and downloaded from:

www.mlrems.org/check-inject-ny/check-inject-ny-training-materials

This training link is NOT publically available under the Check & Inject NY tab located on the main webpage. Please do not disseminate the link to agencies not currently enrolled in the Check & Inject NY Demonstration Project.

Please do not use the physician review number for any purpose other than reporting actual Syringe Epinephrine Kit (SEK) administrations. Much like you and your agency, these physicians are only one part of the larger Check & Inject NY project. They will not have the answers for questions regarding Check & Inject NY training and project administration.

A FAQ document is maintained and consistently updated with answers to many of your questions at www.mlrems.org/check-inject-ny/frequently-asked-questions, and also hosted under the Check & Inject NY tab. Any other questions should be directed to one of the Check & Inject NY project team members. Team members are typically available Monday thru Friday 09:00-15:00 by phone 585-463-2900, and anytime by email at checkinjectny@mlrems.org.

National Education Standards

Pharmacology: The EMT will apply a fundamental knowledge of the medications that the EMT may assist/administer the patient during an emergency, specifically anaphylaxis.

Emergency Medication: The EMT will have a fundamental depth and simple understanding of knowledge, within the scope of practice of an EMT, of the names, actions, indications, contraindications, complications, routes of administration, side effects and interactions and dosages for the medications administered, specifically epinephrine.

Medication Administration: The EMT will have a fundamental depth and foundational understanding of knowledge, within the scope of practice of an EMT, how to administer medication to a patient; specifically intramuscular.

Lesson Plan

Activities

Total training time: (90 minutes/hours)

1. Pre-test 5 minutes
2. Introduction 5 minutes
3. Didactic Video 35 minutes
4. Q&A 10 minutes
5. Psychomotor Skills Training 20 minutes (groups larger than 20 may take longer)
6. Q&A 10 minutes
7. Post-training survey 5 minutes

Required Materials – provided by Check & Inject NY

(ONLY available online at www.mlrems.org/check-inject-ny/check-inject-ny-training-materials)

1. NYS compliant attendance roster
2. Training Video
3. Pre-test
4. Post-test
5. Skills Verification Checklist
6. Slide Set – note format (optional)
7. Certificate of attendance

Required Materials – provided by agency

1. 1 copy of the Pre-test for each participant
2. 1 copy of the Post-test for each participant
3. 1 copy of local REMAC Anaphylaxis Protocol for each skill station
4. Injection material (Oranges – 1/2 per training kit for injection practice)
5. Gloves in assorted sizes for participants
6. 1 copy of the Skills Verification Checklist for each participant
7. Sharps container to dispose of used needles
8. Training kits purchased by agency

Activity 1: Pre-Test (5 minutes)

A pre-test was developed to assess the current attitudes and confidence related to EMT administration of epinephrine auto-injectors in the treatment of anaphylaxis. Trainers are required to administer this test to all training participants. Reviewing the pre-test before administration may assist the trainer with his or her delivery of the training materials. Once completed, these tests will be returned to the Check & Inject NY project team.

The exams may be mailed to:

Check & Inject NY
Division of Prehospital Medicine
601 Elmwood Avenue
Box 655
Rochester, NY 14642

The exams may be scanned and emailed to checkinjectny@mlrems.org

Activity 2: Introductions with Training Goals and Objectives (5 minutes)

Introduce yourself to the participants and, as appropriate, have participants introduce themselves to the group in attendance.

GOAL:

The goal of this training is educate NYS EMTs to safely and effectively administer intramuscular epinephrine to patients experiencing anaphylaxis in a pre-hospital setting. Specifically, to educate NYS EMTs how to correctly administer epinephrine using a syringe, needle, and vial of epinephrine.

OBJECTIVES:

By the end of this training, participants will be able to:

Cognitive:

- List the signs or symptoms that indicate an anaphylactic reaction verse an allergic reaction
- List the indications for epinephrine administered via intramuscular injection
- Identify the possible side effects of epinephrine administered via intramuscular injection

Psychomotor:

- Using a syringe epinephrine kit, prepare a correct adult dose of epinephrine
- Using a syringe epinephrine kit, prepare a correct pediatric dose of epinephrine
- Deliver an intramuscular injection into a training device.
- Verbalize the reassessment of a patient following epinephrine administration
- Document the process from patient contact until transfer of care
- Explain how to report a syringe epinephrine administration to the on-call physician

Activity 3: Training Video/PPT (35 minutes)

Encourage the participants to take notes during the presentation. Trainers may choose to provide participants with copies of the slide-set in a note form to assist in this process. Notes may be downloaded and printed from the www.mlrems.org/check-inject-ny/check-inject-ny-training-materials.

Show the video: *Check & Inject NY: Provider Training*

Activity 4: Question and Answer Period (10 minutes)

Instructors should solicit questions from the group. An important resource for answering participant questions is the FAQ document that is available online at the Check & Inject NY webpage, or by following www.mlrems.org/check-inject-ny/frequently-asked-questions, and should be reviewed before the initial training is offered. Any questions that the instructor is unable to answer should be referred to checkinjectny@mlrems.org for clarification, or by contacting a Check & Inject NY project team member at (585) 463-2900. DO NOT use the physician review line for training or administrative questions.

Activity 5: Psychomotor Skills Training (20 minutes)

It is important that trainers are aware of their local protocol for administration of epinephrine in the setting of anaphylaxis. Protocols for BLS providers vary throughout NYS. The Check & Inject NY project is only intended to replace the epinephrine auto injectors with a vial and syringe. All decisions to administer epinephrine to an anaphylactic patient remain at the discretion of the individual provider with guidance from their local/agency protocols.

BLS providers will use their local **ANAPHYLAXIS PROTOCOL** to assist in the determination the need for epinephrine administration. Trainers should direct participants to the appropriate protocol for their practice session.

Preparation: (Recommended student to evaluator ratio not to exceed 6:1)

Prepare a table with the following materials for each station:

- Pair of gloves for each provider
- SEK training kit
- Orange (or other acceptable injection material)
- Copy of local protocol for anaphylaxis
- SEK Skills Verification Checklist
- Sharps container for each table/station

Typical Skill Station Set-up



Skill Demonstration:

It is recommended that instructors begin with a demonstration which progresses step-by-step through the steps listed below. This will allow the providers to see the entire process and ask questions before they are attempting the skill themselves, minimizing the time and interruptions during the actual skills demonstration by the participants.

Following the demonstration, providers should now be guided through the steps listed below, ensuring that everyone keeps pace with the instructions being given. Do not allow students to advance ahead of the group, even if they have previous experience with intramuscular injections.

Ensure that every provider has gloves before they begin the skills verification process, and that they wear them while completing the entire skills session of the training.

Each provider is required to have a completed Skills Verification Checklist documenting the completion of their skills. This verification is to be maintained by the Agency Check & Inject NY Coordinator. DO NOT return these forms to the Check & Inject NY project team.

Skill Demonstration – Drawing epinephrine into syringe

1. Check for expiration date / seal on SEK
2. Open the SEK and review the contents
3. Review the Check & Inject NY paper insert
4. Demonstrate site selection only on another student on mannequin
5. Wipe the injection surface with alcohol pad in circular motion – allow to dry
6. Verify the drug – correct drug, expiration date has not passed, clear in color
7. Review the volume required for adult AND pediatric doses marked on the syringe
8. Instruct participants to plan for administration of either an adult or pediatric dose
9. Practice preparing (drawing) the dose into the syringe
 - a) Remove syringe and needle from packaging
 - b) Assemble syringe and needle
 - c) Pull plunger out until stopper passes desired dosing mark
 - d) Uncap vial, invert vial, and insert needle just through stopper (visible inside vial)
 - e) Depress plunger, injecting air into vial Caution: Plunger may push back slightly
 - f) Draw the plunger back beyond the desired dose
 - Drug should fill the syringe
 - Minimizing air in syringe by keeping needle tip immersed in fluid
 - g) Remove needle from vial
 - h) Holding the syringe with needle upright, tap syringe to move air to the top (needle end)
 - i) Expel air and/or excess drug until plunger returns to the desired dose
 - j) Check to ensure no air is present in the syringe
 - If air is present, return to (step c) and repeat the process, using the original vial

– PAUSE –

DO NOT ALLOW ANY PROVIDER TO ADMINISTER INJECTION UNTIL ALL PROVIDERS HAVE DEMONSTRATED THE ABILITY TO PROPERLY DRAW AN ADULT DOSE OF EPINEPHRINE INTO THEIR EPI SAFE SYRINGE

Skill Demonstration – Administer IM injection

DO NOT ADMINISTER THE MEDICATION INTO ANOTHER PERSON FOR ANY REASON

Use of an orange or other acceptable medium for practice **MUST** be used to demonstrate the actual injection and administration of drug.

1. Practice intramuscular (IM) injection
 - a) Insert needle at 90 degree angle, with a quick, dart-like action
 - b) Push plunger to administer dose slowly
 - c) Remove needle quickly and engage safety cap using one hand technique
 - d) Dispose of needle and syringe in proper sharps container
 - e) Massage site for 30 seconds
 - f) Place adhesive bandage on site

2. Reassess and document – provider must verbalize the following steps
 - a) Reassure patient, observe response, observe side effects
 - b) Continue to follow regional anaphylaxis protocols
 - c) Vital signs every 5 minutes
 - d) Update ALS
 - e) Document
 - Date, dose, and time
 - Location of injection and patient response

3. Report Use to (844) EPI-CALL (844-374-2255) for physician review

Resetting the training station:

ONLY PROPERLY QUALIFIED INSTRUCTORS SHOULD RESET THE TRAINING STATIONS

NOTE: A needle and syringe must be made available to refill the training epinephrine vial after each skills demonstration. Any syringe and needle combination may be used.

If your agency does not typically have access to syringes and needles, it is recommended that you use a syringe and needle from the additional training supplies. That syringe and needle combination can then be used during the final skills demonstration, or kept aside for future training if needed.

Only a qualified instructor should handle this needle, which will need to remain unsecured throughout training.

1. Resupply each SEK with a new
 - Epi Safe syringe
 - needle
 - 2 alcohol pads
2. Refill each training vial with saline/water and return the vial to the SEK
 - Attempt to limit the amount of fluid in the vial to as close to 1 mL as possible

Completion

A certificate may be downloaded and completed for each provider. This training may be used as CME towards recertification at the discretion of the agency's CIC and/or Medical Director. A certificate is not required to be provided. The sign in rosters should be maintained by the Check & Inject NY Coordinator for the duration of the demonstration project. The roster will serve as verification of training for any local or state agency that may inquire.

Activity 6: Question and Answer Period (10 minutes)

Solicit questions from the group. An important resource for answering participant questions is the FAQ document that is available online at the Check & Inject NY webpage, or by following www.mlrems.org/check-inject-ny/frequently-asked-questions, and should be reviewed before the initial training is offered. Any questions that the instructor is unable to answer should be referred to checkinjectny@mlrems.org for clarification, or by contacting a Check & Inject NY project team member at (585) 463-2900. DO NOT use the physician review line for training or administrative questions.

Activity 7: Post-Training Survey (5 minutes)

A post-test was developed to assess the attitudes and confidence related to EMT administration of epinephrine auto-injectors in the treatment anaphylaxis following the completion of this training. Trainers are required to administer this test to all training participants. Reviewing the results of the post-test may point to additional participant training needs. These tests will be returned to the Check & Inject NY project team.

The exams may be mailed to:

Check & Inject NY
Division of Prehospital Medicine
601 Elmwood Avenue
Box 655
Rochester, NY 14642

The exams may be scanned and emailed to checkinjectny@mlrems.org

Frequently Asked Questions

Version date: November 22, 2015

This document will be updated periodically and as needed by the Check & Inject NY team. Please refer to the Check & Inject NY tab or follow www.mlrems.org/check-inject-ny/frequently-asked-questions for the most current version of the document.

Frequently Asked Questions

1. What is the expiration date for the Syringe Epinephrine Kits?

The actual expiration dates will vary, and can be located on the short edge of the syringe epinephrine kits. We anticipate that all the epinephrine provided will be sustainable for the length of the project, approximately eighteen months.

2. What is the ordering process?

First, you will need to fill out an order form and submit it to checkinjectny@mlrems.org. Once it has been received, you will be sent an invoice. When the payment has been received, the kits will be ordered and sent to your facility. Your Check & Inject NY Coordinator will receive an email with the tracking information.

3. Can I order my own replacement kits?

No. Bound Tree Medical is the only authorized vendor for the pilot project, and they are not available for sale to the general public. All ordering of replacement kits must be made by a Check & Inject NY team member.

4. My agency has already completed the training, and would like additional kits for additional vehicles in our organization. How can I get those additional kits.

Simply request an additional order form from a Check & Inject NY team member, or download one from the www.mlrems.org website under the Check & Inject NY tab.

5. Who needs to receive training for the SEK project?

Every EMT-Basic must be trained, regardless of their background or outside experience. All advanced EMTs must be present for the video training, but may opt out of the skills session.

6. I have several EMRs (CFRs) in my agency. Can they participate?

Only an EMT-Basic or higher can participate in the project. The SEK project does not authorize any EMR or CFR to administer epinephrine. However, anyone may attend the training sessions for the information provided, and to better understand how this project may affect the agency.

7. Can I get multiple doses from a single vial?

No. Similar to the Epinephrine Auto-Injector (EAI) delivering a single dose, the SEK project specifically uses one dose = one vial for the Syringe Epinephrine Kits (SEKs).

8. If I am unable to expose my injection site, can a SEK be delivered through clothing?

It is recommended that the injection site be exposed and visible before delivering an injection. However, since epinephrine is known to be lifesaving in anaphylaxis, the SEK can be administered through a reasonable amount of clothing, much like EAI's are delivered currently.

9. If my agency is not able to download the training materials, can we still participate?

If you are having any difficulty obtaining or presenting any of the SEK materials, please contact our office and speak with an SEK project team member at (585) 463-2900. We will make every reasonable attempt to provide you with alternatives.

10. My agency is a BLS First Response agency, and no one in our agency is comfortable teaching the SEK training to my department. Can someone else do the training for us?

If you have an affiliation with an agency within your region who would be willing to assist you in your training, that is acceptable. It will remain the responsibility of the Agency Check and Inject Coordinator for your agency to maintain those training records once they are completed. It will also remain the responsibility of the Agency Check and Inject Coordinator to ensure all new members/employees are trained moving forward. If you need further clarification, please contact a SEK project team member at wither mlrems@mlrems.org or (585) 463-2900.

11. How can I figure out how many KGs my patient weighs?

Any weight in pounds can be converted to kilograms using the following formula:

$$\text{weight in pounds} / 2.2 = \text{weight in kilograms}$$

There is also a convenient chart located at www.mlrems.org for you to download.

12. Our protocol says to deliver a different dose of epinephrine to an anaphylactic patient. Should I try to draw up more epinephrine to match my protocol?

The SEKs are intended to replace EpiPens and not appropriate for the use in ALS protocols. Any ALS provider using the SEK should only use the SEK as it was designed to be used. Any variation in protocol where a dose > 0.3 mg is suggested is likely linked to an ALS protocol. Some regions do have ALS protocols which indicate the administration of 0.5 mg epinephrine for anaphylaxis. If you have any questions, contact your agency or regional medical director.

The Epi Safe syringe can only be used to administer 0.15 mL and 0.3 mL doses.

13. What happens if my SEK is lost or damaged? How do I obtain a replacement?

As part of your participation in the project, all SEKs used during the treatment of patients will be replaced free of cost, once all the required documentation is completed. If you need to replace your agency's SEK for ANY OTHER REASON, you will need to contact a SEK project team member at either mlrems@mlrems.org or (585) 463-2900. You may need to purchase your own replacement.

14. After the use of an SEK, can I place an EpiPen on my ambulance until I receive my replacement?

No. One of the requirements of the SEK project is that your agency is 'all in' once you have committed to the project. Since the SEK is capable of administer either an adult OR pediatric dose, one SEK should be adequate to meet the needs of any patient you may encounter until a replacement SEK arrives.

On the occasion where BOTH of your SEKs are administered from a single vehicle, you may move kits from other vehicles until your replacement SEKs arrive. If for any reason, you do not have enough SEKs to supply each certified vehicle with AT LEAST one SEK, contact an SEK project team member at (585) 463-2900. Arrangements can be made for expedited shipping or other delivery options.

15. Why doesn't the training mention to pull back on the syringe before administering the dose of epinephrine? Isn't that standard practice for an intramuscular (IM) injection?

The SEK program is duplicating the procedure used in the administration of epinephrine auto injectors. The use of EAI's makes no provisions to ensure placement of the injection before delivery, other than by proper site selection. Epinephrine is the lifesaving treatment in the setting of an anaphylactic reaction and timely administration is crucial.

The procedure to administer most medications is to draw back on the syringe and check for the presence of blood before administering the injection.