STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

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OFFICE OF EMERGENCY MEDICAL SERVICES
OEMS COMMUNICATIONS STATEMENT 19-04

Date: April 1, 2019

To: All Connecticut certified & licensed EMS organizations
All Connecticut Sponsor Hospitals

From: Raffaella Coler RN, MEd
Director, Office of Emergency Medical Services

Richard Kamin, MD, FACEP
Medical Director, Office of Emergency Medical Services

Re: Minimum Equipment and Statewide EMS Protocols to reflect recent "Check and Inject" scope of practice expansion

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The purpose of this Communications Statement is to distribute updated documentation reflecting the recent EMT scope of practice expansion for administration of epinephrine using the "Check and Inject" method. Documents include:

- Updated CT Basic Vehicle Minimum Equipment List summary
- Updated Statewide EMS Protocol 2.3A Allergic Reaction/Anaphylaxis Adult
- Updated Statewide EMS Protocol 2.4P Allergic Reaction/Anaphylaxis Pediatric

Review was completed by the Connecticut EMS Medical Advisory Committee (CEMSMAC), and the Connecticut EMS Advisory Board (CEMSAB).

The entire revised 2018 Connecticut EMS Minimum Equipment List can be found on the Communications and Reference Documents page of the OEMS website, and the entire revised Statewide EMS Protocols including Allergic Reaction/Anaphylaxis, 2.3A & 2.4P can be found on the Statewide EMS Protocols page of the OEMS website. If you have any questions, please contact your Regional EMS coordinator.

Connecticut Department of Public Health

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2018 CONNECTICUT
MINIMUM EQUIPMENT LIST
2017-2018 CHANGES SUMMARY

2019 EPI REVISION

LIST/CATEGORY	CHANGE
Basic Vehicle List	
Epinephrine 1:1,000; must be supplied so as to deliver at least one injection for an adult and one injection for a pediatric patient. Any combination of the following is acceptable: A. An appropriate, commercially available and FDA approved pre-filled single dose device and/or B. "Check and Inject" Supplies as listed below.	
A.	***Pre-filled single dose commercially prepared device***
0.3 mg	Epinephrine pre-filled single dose device (Adult)
0.15 mg	Epinephrine pre-filled single dose device (Child)
B.	***"Check and Inject" Supplies***
0.3 mg	Epinephrine 1:1,000 (Adult)
1	Syringe not greater than 1 mL (Adult)
2	Needles, 1-1.5", 22-25 gauge (Adult)
0.15 mg	Epinephrine 1:1,000 (Child)
1	Syringe not greater than 1 mL (Child)
2	Needles, 5/8", 22-25 gauge (Child)

All quantities represent minimums believed to be adequate for a provider to render care on a single medical/trauma response. MCI's, prolonged transports or multiple consecutive responses may require additional supplies. Services may need to carry additional supplies and/or establish restocking procedures to assure adequate supplies are available for all responses.

2.3A Allergic Reaction/Anaphylaxis Adult

EMT STANDING ORDERS

E

- Routine Patient Care.
- For anaphylaxis, administer adult epinephrine autoinjector (EpiPen) 0.3mg IM in the lateral thigh.
  - May alternately administer epinephrine 0.3 mg via syringe if Sponsor Hospital trained, authorized and approved
- For additional dosing, contact Direct Medical Oversight.
- For nausea of vomiting see Nausea/Vomiting Protocol 2.14.
- Do not delay transport.

ADVANCED EMT STANDING ORDERS

A

- For anaphylaxis:
  - Administer adult epinephrine autoinjector (preferred) OR

If operating under 2007 Scope of Practice

  - Epinephrine 1mg/ml (1:1,000) 0.3mg (0.3ml) IM. Repeat epinephrine every 5 minutes until signs & symptoms resolve.
  - Consider the administration of albuterol 2.5mg via nebulizer. Repeat albuterol 2.5mg, every 5 minutes (4 doses total) via nebulizer.
- For signs of shock consider fluid per Shock – Non-Traumatic Protocol 2.23.

PARAMEDIC STANDING ORDERS

P

- After Epinephrine has been administered or for isolated skin symptoms of allergic reaction consider:
  - Diphenhydramine 25 – 50mg IV/IO/IM.
  - If the patient presents with hives consider Famotidine (Pepcid) 20 mg IV/IO.
- For anaphylaxis refractory, after 3 or more doses of IM epinephrine, (e.g. persistent hemodynamic compromise, bronchospasm), consider:
  - Epinephrine infusion 2-10micrograms/minute until symptoms resolve.
- For anaphylaxis with hypotension refractory to epinephrine and patient is taking a Beta Blocker, consider administering 1mg. Glucagon IV/IO (preferred) or IM.

CAUTION: Epinephrine is available in different routes and concentrations. Providers are advised to re-check the dosing and concentration prior to administration.

In anaphylaxis, epinephrine should not be delayed by taking the time to administer second-line medications such as diphenhydramine.

PEARLS:

Allergic reactions are commonly a response to an allergen involving the skin. Anaphylaxis is defined as:

1) Known allergen exposure with hypotension or respiratory compromise **OR**
2) Acute onset of symptoms with two of more of the following:

- Respiratory compromise: (dyspnea, wheezing, stridor)
- Angioedema or facial/lip/tongue swelling
- Widespread hives, itching, swelling
- Persistent gastrointestinal involvement (vomiting, diarrhea, abdominal pain)
- Altered mental status, syncope, cyanosis, delayed capillary refill, or decreased level of consciousness associated with known/suspected allergenic exposure
- Signs of shock

2.3P Allergic Reaction/Anaphylaxis Pediatric

EMT STANDING ORDERS

E

- Routine Patient Care.
- For anaphylaxis administer:
  - Pediatric Epinephrine autoinjector (EpiPen Jr) 0.15 mg IM in the lateral thigh if less then 25 kg.
  - Adult Epinephrine autoinjector (EpiPen) 0.3 mg IM in lateral thigh if 25 kg or greater.
  - May alternately administer above autoinjector dose of epinephrine via syringe if Sponsor Hospital trained, authorized and approved
- For additional dosing, contact Direct Medical Oversight.
- For nausea of vomiting see Nausea/Vomiting Protocol 2.14.
- Do not delay transport.

ADVANCED EMT STANDING ORDERS

A

- For anaphylaxis:
  - Administer epinephrine autoinjector (preferred) as described above **OR**

If operating under 2007 Scope of Practice

  - If <25 kg, administer 0.15 mg epinephrine 1 mg/mL (1:1,000) IM, lateral thigh preferred.
  - If ≥25 kg, administer 0.3 mg epinephrine 1 mg/mL (1:1,000) IM, lateral thigh preferred.
  - Repeat epinephrine every 5 minutes until signs and symptoms resolve.
  - Consider the administration of albuterol 2.5mg via nebulizer. Repeat albuterol 2.5mg, every 5 minutes (4 doses total) via nebulizer.
- For signs of shock consider fluid per Shock – Non-Traumatic Protocol 2.23.

PARAMEDIC STANDING ORDERS

P

- After Epinephrine has been administered or for isolated skin symptoms of allergic reaction consider:
  - Diphenhydramine 1.25 mg/kg by mouth OR
  - Diphenhydramine 1 mg/kg IV/IO/IM (Maximum dose 50 mg).
- For anaphylaxis refractory, after 3 or more doses of IM epinephrine, (e.g. persistent hemodynamic compromise, bronchospasm), consider:
  - Epinephrine infusion 0.1 – 2 micrograms/kg/minute, start low and titrate to effect. No maximum dosage.

CAUTION: Epinephrine is available in different routes and concentrations. Providers are advised to re-check the dosing and concentration prior to administration.

In anaphylaxis, epinephrine should not be delayed by taking the time to administer second-line medications such as diphenhydramine

PEARLS:

Allergic reactions are commonly a response to an allergen involving the skin. Anaphylaxis is defined as:

1) Known allergen exposure with hypotension or respiratory compromise **OR**
2) Acute onset of symptoms with two of more of the following:
   - Respiratory compromise: (dyspnea, wheezing, stridor)
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   - Widespread hives, itching, swelling
   - Persistent gastrointestinal involvement (vomiting, diarrhea, abdominal pain)
   - Altered mental status, syncope, cyanosis, delayed capillary refill, or decreased level of consciousness associated with known/suspected allergenic exposure
   - Signs of shock