



## EMS System for Metropolitan Oklahoma City and Tulsa 2021 Medical Control Board Treatment Protocols



Approved 9/9/20, Effective 1/15/21, replaces all prior versions

### 160 – EPINEPHRINE AUTOINJECTOR (EPIPEN<sup>®</sup>, Auvi-Q<sup>®</sup>)

EMT
EMT-INTERMEDIATE 85
ADVANCED EMT
PARAMEDIC

**Class:** Vasoconstrictor, Bronchodilator (Catecholamine)

**Actions/Pharmacodynamics:** Stimulates alpha receptors in the peripheral vasculature, producing vasoconstriction-related increases in systemic blood pressure. Stimulates beta-1 receptors in the myocardium, producing increases in heart rate, myocardial contraction, and as a result, cardiac output. Stimulates beta-2 receptors in the lower respiratory tract smooth musculature, producing bronchodilation.

**Indications:** Dyspnea - Asthma (Severe - Refractory to Inhaler/Nebulization) (3C)  
Acute Allergic Reactions (Anaphylaxis) (8D)  
Snakebites (Anaphylaxis) (8E)  
Bee/Wasp Stings (Anaphylaxis) (8F)

**Contraindications:** None in indications above.

**Pharmacokinetics:** Onset of action within 5-10 minutes after IM administration. Duration of effect may range upwards of 30 minutes intramuscularly.

**Adverse/Side Effects:** Restlessness, anxiety, generalized tremors, headache, dizziness, chest pain, palpitations, hypertension, premature ventricular contractions, tachycardia. Pulsatile patients ages 35 years or greater, particularly those with known coronary artery disease, receiving epinephrine should have ECG monitoring initiated and continued as soon as an ECG monitor is available. Safety in pregnancy not firmly established, though when clinically indicated the benefits outweigh risks and should not deter clinically necessary usage.

**Dosage:** Dyspnea - Asthma (Severe - Refractory to Inhaler/Nebulization) - Adult (3C)  
Acute Allergic Reactions (Anaphylaxis) - Adult (8D)  
Snakebites (Anaphylaxis) - Adult (8E)  
Bee/Wasp Stings (Anaphylaxis) - Adult (8F)  
Adult Epinephrine Autoinjector (0.3 mg of Epinephrine 1mg/mL 1:1000) IM lateral thigh

**\*\*OLMC Order required if pt  $\geq$  50 years old, heart illness history, or blood pressure  $>$  140/90 mmHg.**



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### PROTOCOL 160: Epinephrine Autoinjector (EpiPen<sup>®</sup>, Auvi-Q<sup>®</sup>)

#### Dosage, cont.:

**Dyspnea- Asthma (Severe-Refractory to Inhaler/Nebulization)-Pediatric (3C)**

**Acute Allergic Reactions (Anaphylaxis) - Pediatric (8D)**

**Snakebites (Anaphylaxis) - Pediatric (8E)**

**Bee/Wasp Stings (Anaphylaxis) - Pediatric (8F)**

Pediatric Epinephrine Autoinjector (0.15 mg of Epinephrine 1mg/mL 1:1000) IM lateral thigh

**\*\*OLMC Order required if heart illness history or blood pressure > 140/90 mmHg.**

**How Supplied:** 0.3 mg Adult Epinephrine Autoinjector

0.15 mg Pediatric Epinephrine Autoinjector

(Always check concentration and dose per container at time of patient medication administration)

**Special Comment:** For autoinjector medication administration, expose and wipe the mid-lateral thigh with Chloraprep<sup>®</sup>, Betadine<sup>®</sup>, or an alcohol wipe. When handling the autoinjector for dosing, grasp the autoinjector with a fist, and remove the trigger safety cap. DO NOT place fingers or hand over the injection tip once the trigger safety cap is being removed.

Place the injection tip on the desired injection skin area and push the entire autoinjector into the thigh, using firm and continuous pressure, until a click is heard (patient will exhibit evidence of feeling spring-loaded needle activation) and hold in place for 10 seconds while medication is being delivered intramuscular.

Use caution when withdrawing the autoinjector to avoid needlestick injury. Dispose of whole autoinjector in a sharps container.

After autoinjector is complete, massage injection site for 15 to 30 seconds to improve epinephrine absorption.