

EPINEPHRINE: PRE-MEASURED INJECTION DEVICE

INTRODUCTION:

Patients who have known allergic reactions to insect bites or other allergens will often have epinephrine prescribed in the form of an Ana-Kit® or EpiPen® (or other similar device) that delivers an injection of pre-measured epinephrine. Under special circumstances, and on the order of the Medical Control physician, an EMT may need to administer an EpiPen or assist the patient in the administration of epinephrine prescribed for the patient by their personal physician.

INDICATIONS:

1. Patients experiencing a severe allergic reaction from stings or other allergens

PRECAUTIONS:

1. Contact medical control physician prior to administration.
2. Use with caution in patients > 40 years.
3. At the time when a request to assist a patient with their epinephrine is made, the EMT should report any suspected complicating conditions, including the following:
 - Heart disease
 - Psychosis
 - Hypertension history
 - Age > 40 years
 - COPD
 - Glaucoma
 - Pulmonary edema
 - Hyperthyroidism
 - Pregnancy

CONTRAINDICATIONS:

1. There are no absolute contraindications to the use of epinephrine in a life-threatening situation.

ADULT ADMINISTRATION:

1. If possible, remove insect stinger, but do not squeeze, pinch, or push it deeper into the skin.
2. **First Responder/Basic:** Obtain order from medical control. (*First Responders see Special Notes for adult administration options*)
3. **Basic IV/ALS:** Administer or assist in administration.
4. *EpiPen administration:*
 - A. Pull off safety cap.
 - B. Wipe injection site with alcohol.
 - C. Place tip of EpiPen (0.3mg dose) or 2 (0.15mg doses) on exposed thigh (anterior/lateral) at right angle to the leg. Apply in this area regardless of what area of the body has been stung.
 - D. Press hard into thigh until auto injector mechanism triggers, and hold in place for several seconds. Remove the EpiPen and discard into sharps container.
 - E. Massage injection site for 10 seconds to enhance absorption.
 - F. With persistent severe anaphylaxis, repeated injections with an additional EpiPen may be necessary. Consult with medical control if a second adult dose is indicated.
5. *Ana-Kit administration:*
 - A. Remove needle cover.
 - B. Hold syringe upright and push plunger to expel air and excess epinephrine (plunger will stop).
 - C. Rotate rectangular plunger 1/4 turn to the right. Plunger will align with slot in barrel of syringe.
 - D. Wipe injection site [lateral upper arm (deltoid) or anterior/lateral thigh] with alcohol.
 - E. Insert needle straight (90° angle) into arm or thigh and push plunger until it stops.
 - F. Remove needle and massage injection site for 10 seconds to enhance absorption. Handle needle in such a way to avoid contamination and inadvertent needlestick.
 - G. Have patient chew and swallow Chloamine® tablets provided in kit.
 1. Adults and children > 12 years: 4 tablets
 2. Children 6 - 12 years: 2 tablets

3. Children < 6 years: 1 tablet
- H. If, after 10 minutes from initial injection, symptoms are not noticeably improved, a second injection will likely be required. Contact medical control for second injection order.
- I. Prepare same syringe for a possible second injection by turning the rectangular plunger another 1/4 turn to the right to line up with rectangular slot in the syringe.
- J. Cleanse skin area again with alcohol and administer second dose as above. A small amount of epinephrine will remain in the syringe and cannot be expelled.
- K. Dispose of needle and syringe in sharps container.
6. Repeat patient assessment and vital signs.
7. Apply cold packs to site of sting.
8. Document any changes in patient condition.

PEDIATRIC ADMINISTRATION: (same as adult except):

1. Use the EpiPen Jr. (0.15 mg of 1:2,000 epinephrine IM in 0.3 cc). This is intended for patients < 60 lbs.
2. The Ana-Kit syringe barrel has 0.1 cc graduations so that smaller doses can be administered to infants and children.
 - A. Infant to 2 years: 0.05 to 0.1 cc
 - B. 2 - 6 years: 0.15 cc
 - C. 6 - 12 years: 0.2 cc

SPECIAL NOTES:

1. **May be administered by all EMS personnel. (First Responder through ALS)**
2. This information is also provided as a reference in the event that a patient's private physician or the medical control physician advises trained EMS personnel to assist a patient in the use of their EpiPen or Ana-Kit (or other similar device) in the setting of a severe allergic reaction.
3. **First responders that only carry two Epi Pen Jr's (0.15mg each) should administer both Epi Pen Jr's to the adult patient to equal one adult dose. (0.3mg)**
4. Do not apply tourniquets that may be provided in patient's epinephrine kit. Consult with medical control if patient has applied them prior to EMS arrival.