Epinephrine

The recommended treatment for anaphylaxis is a medication called epinephrine. It is the drug form of the hormone adrenaline which the body produces in response to stressful situations. Epinephrine works to reverse the symptoms of an allergic reaction by opening the airways and increasing blood pressure.

Epinephrine Auto-injectors

This life-saving medication is given using an auto-injector, a hand-held device which releases a pre-measured dose of epinephrine when applied to the mid-outer thigh. There is currently one epinephrine auto-injector available in Canada: EpiPen®. Individuals at risk of anaphylaxis are advised to carry an epinephrine auto-injector with them at all times when age appropriate, usually by age 6 or 7. It’s important to regularly check the expiry date and replace the device as needed.

Weight/Dosage

According to product instructions, the 0.30 mg dosage of the EpiPen® auto-injector should be used for adults and children weighing 30 kg (66 lbs) or more; and the 0.15 mg dosage should be used for children weighing between 15 kg to 30 kg (33 and 66 lbs).

Some health care providers may prescribe differently than these dosages. The individual’s health care provider will prescribe the correct dose for each person, including the switch from the lower dosage to the higher dosage and the dose for those who weigh less than 15 kg (33 lbs).

Body Position

When giving epinephrine, it is recommended to have the person SIT or LIE DOWN.

Once it has been given, they should be placed on their back (if they are not already lying down) with their legs raised.

If they feel sick or are vomiting, they should be placed on their side so that the airway is clear and they do not choke on vomit.

It may be helpful to lie down with a young child to keep them calm.

Although a young child may wish to be held or carried, it is recommended that they remain lying down until emergency medical services come directly to them.

It is important that they DO NOT sit up or stand after receiving epinephrine as these sudden changes of position may lower their blood pressure which will worsen their condition, and potentially result in death.1 2 Also, individuals should not walk to the ambulance, but have emergency responders directed to them.

For Your Information

- Epinephrine will not cause harm if given unnecessarily to a normally healthy person.
- In order to reverse the reaction or prevent it from worsening, it should be given at the start of a known or suspected anaphylactic reaction.
- The risk of not giving epinephrine far outweighs the potential side effects of the medication (e.g. rapid heart rate, dizziness, headache).
- Epinephrine auto-injectors can be given through one layer of clothing, if necessary.
- A second dose of epinephrine may be given as early as 5 minutes after the first dose if there is no improvement in symptoms.
- The effects of epinephrine can wear off. After someone receives epinephrine, 9-1-1 or local emergency medical services should be called, and the individual should go to the hospital immediately (ideally by ambulance) for further treatment and/or evaluation.
- Antihistamines and asthma medications should not be used instead of epinephrine for treating anaphylaxis.
- Epinephrine auto-injectors should be kept at room temperature – not exposed to extreme cold (fridge/freezer) or heat (glove box in a vehicle).
- In Canada, epinephrine auto-injectors are available as behind-the-counter medication which means that a prescription is not required.

References:


Source: Anaphylaxis in Schools & Other Settings, 3rd Edition Revised. © 2005 - 2016 Canadian Society of Allergy and Clinical Immunology

Disclaimer: The information provided is not intended to provide medical or legal advice. Readers should consult a physician or healthcare professional before making medical decisions or when they have questions regarding their medical condition.