



Sabrina's Law

County of Simcoe
Paramedic Services





Introduction

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Objectives

1. Introduction to Sabrina's Law
2. School requirements
3. Review of Anaphylactic Shock
4. Signs & Symptoms of an allergic reaction
5. What is Epinephrine
6. Administration of Epi-Pen/Twinject auto injectors.
7. Post Treatment

Sabrina's Law

- Sabrina's Law is an Act to protect anaphylactic pupils. This Act came into effect January 1, 2006.
- The implementation of this Act shall include the following:
 - Strategies to reduce the risk of exposure to anaphylactic agents in the school setting.



Sabrina's Law

- A communication plan for the dissemination of information on life-threatening allergies to parents, pupils and employees.

Sabrina's Law

- Regular training on dealing with life-threatening allergies for all employees and others who are in regular contact with pupils on a regular basis.

This would include:

- School staff
- Food service staff
- Bus drivers
- Coaches

Sabrina's Law

- A requirement that every school principal develop an individual plan for each pupil who has an anaphylactic allergy.
- A requirement that every school principal ensure that, upon registration, parents, guardians and pupils shall be asked to supply information on life-threatening allergies.



Sabrina's Law

- A requirement that every school principal maintain a file for each anaphylactic pupil of current treatment and other information, including a copy of any prescriptions and instructions from the pupil's physician or nurse and a current emergency contact list.

Anaphylaxis

- Anaphylaxis is defined as “a severe allergic reaction to any stimulus, having sudden onset, involving one or more body systems with multiple symptoms.”

Anaphylaxis

- An allergen is a substance capable of causing an allergic reaction. Upon first exposure, the immune system treats the allergen as something to be rejected and not tolerated. This process is called sensitization. Re-exposure to the same allergen in the now-sensitized individual may result in an allergic reaction, when in its most severe form, is called anaphylaxis.

Allergens

- Common Allergens include:
 - Peanuts, tree nuts (almond, hazelnut, cashew, pistachio)
 - Milk, egg, fish, shellfish,
 - Insects
 - Sesame seeds, soy, wheat
 - Medications, latex
- In some cases of Anaphylaxis the cause is unknown.

Signs and Symptoms

- An anaphylactic reaction can involve any of the following symptoms, which may appear alone or in any combination, regardless of the triggering allergen.

Signs and Symptoms

- Skin
 - The student may develop:
 - Hives (Urticaria)
 - Swelling
 - Itching
 - Warmth
 - Redness



Signs and Symptoms

- Hives



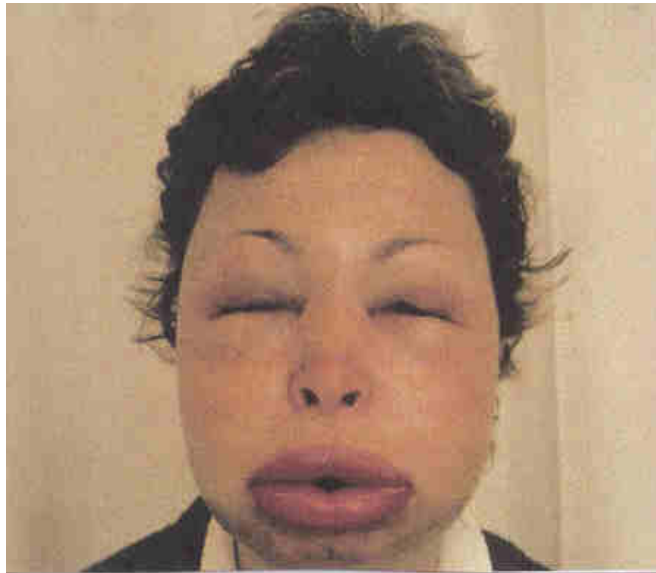
Signs and Symptoms

- Facial Swelling (Angioedema)



Signs and Symptoms

- Facial Swelling
 - Facial swelling before epinephrine



- Patient treated with Epinephrine



Signs and Symptoms - Respiratory

- Wheezing
- Shortness of Breath
- Throat tightness
- Cough
- Hoarse Voice (Stridor)
- Trouble swallowing
- Chest Pain/Tightness
- Nasal congestion or hay fever-like symptoms (runny itchy nose and watery eyes, sneezing)

Signs and Symptoms - Respiratory

- Wheezes



Signs and Symptoms - Respiratory

- Stridor



Signs and Symptoms – Gastrointestinal (Stomach)

- Nausea
- Pain/Cramps
- Vomiting
- Diarrhea

Signs and Symptoms – Cardiovascular (Heart)

- Pale/Blue skin colour
- Weak pulse
- Passing out
- Dizzy/Lightheadedness
- Shock

Signs and Symptoms - Other

- Anxiety
- Feeling of “Impending Doom”
- Headache

Epinephrine

- Administer an Epinephrine Auto-Injector at the first sign of a reaction occurring in conjunction with a known or suspected contact with an allergen.
- Epinephrine reverses the problem causing vessel constriction (increases blood pressure) reduces swelling, opens the airway and increases the heart rate.

Epinephrine

- Epinephrine is also known as adrenaline which is naturally produced in the body. Epinephrine is the treatment of choice to treat anaphylaxis and all efforts should be directed toward its immediate use.

Epinephrine

- There are no contraindications to using epinephrine for a life-threatening allergic reaction. In a normal healthy individual, epinephrine will not cause harm if given unnecessarily.

Epinephrine

- Possible side effects from epinephrine can include:
 - Rapid heart rate
 - Flushing or pallor (paleness)
 - Dizziness, weakness
 - Tremors and headache
- These side effects are generally mild and subside within a few minutes.

Epinephrine Auto-Injector

- Epinephrine auto-injectors are easy to use with a concealed needle that contains a pre-measured dose of epinephrine. They are intramuscular devices which should be injected into the muscle on the outer side of the thigh to release the medication. There are currently two epinephrine auto-injectors available in North America: EpiPen and Twinject.

Epinephrine Auto-Injector

- EpiPen



- Twinject



EpiPen - Administration

1. Remove cap from carrying case/storage tube.
2. Remove EpiPen from storage tube and grasp unit with black tip pointing downward.
3. Pull off grey activator cap.
4. Jab black tip firmly into outer thigh so it “clicks” AND HOLD on thigh approximately 10 seconds.
5. Massage injected area for 10 seconds.

EpiPen - Administration

6. Call 911.
7. After removing EpiPen carefully place used auto-injector, needle-end first, into storage tube.
8. Screw cap of carrying case on completely; this automatically bends the needle back and secures pen so it will not fall out.
9. Forward container to Paramedic.

EpiPen - Administration

- EpiPen



Twinject Administration

1. Pull off GREEN end cap to see a GREY cap (never place finger/thumb over grey cap.
2. Pull off RED end cap
3. Place GREY cap against outer thigh. Press down firmly and hold for 10 seconds.
4. Remove auto-injector and call 911

Twinject Administration-Second Dose if Required

If symptoms have not improved in 10 minutes from first dose, inject second dose.

1. Unscrew and remove GREY cap. Beware of exposed needle. Holding blue hub at needle base, remove syringe from barrel.
2. Slide collar off plunger.

Twinject Administration-Second Dose if Required

3. Insert needle into mid-thigh (at least 5cm from first injection) and push plunger down completely.
4. Remove syringe and dispense in Twinject container

Twinject Dispensing

1. After removing the twinject auto-injector or syringe, carefully place auto-injector or used syringe, needle-end first, into storage tube (do not touch the needle)
2. Close the storage case
3. Forward container to the Paramedic

Sharps Safety

- Never touch the needle or the end where the needle injects from.
- Always grasp the auto-injector from the mid shaft.
- After administration of the auto-injector ensure the auto-injector is properly contained.

Sharps Safety

- If epinephrine is injected mistakenly into a finger/thumb, seek medical treatment immediately.
- If improper handling of the auto-injector results in a needle stick, let the puncture site bleed freely, clean site with an antiseptic, seek medical consultation with a physician.

Post Treatment

- To improve blood circulation, caregivers should lie the patient down elevating their legs.
- If the patient is experiencing difficulty breathing they should be placed on the ground sitting up.
- If the person feels nauseated or is vomiting, lay them on their side, head down, to prevent aspiration.



References

Anaphylaxis Resource Kit, Ministry of Education

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