

Managing Anaphylaxis at School



Sabrina's Law – Bill 3

- Sabrina Shannon had a severe allergy to dairy products
- Sabrina was 13 when she died after eating french fries that had been cross-contaminated with cheese
- Sabrina's Law - Bill 3 is intended to protect students at school with life-threatening allergies
- It came into effect January 1, 2006.



Sabrina's Law – Bill 3

- The law states that school boards must:
 - provide regular training for staff
 - maintain individual files for students with a life-threatening allergy
 - identify and communicate emergency procedures for those students
 - designate safe storage for emergency epinephrine auto-injectors

What is Anaphylaxis?

- Anaphylaxis is a sudden, severe allergic reaction involving one or more body systems with multiple symptoms
- Anaphylaxis requires immediate attention and treatment
- 1-2% of Canadians live with the risk of anaphylaxis

Common Causes

- Insect stings
- Foods (peanuts, tree nuts, shellfish, fish, milk, soy, wheat and eggs)
- Medications
- Latex
- Exercise-induced



Signs and Symptoms

- The most distinctive symptoms include:
 - itching/hives
 - swelling of the lips, tongue, face or throat
 - difficulty breathing or swallowing
- Other common symptoms include:
 - metallic taste in the mouth
 - wheezing
 - flushing
 - abdominal pain, diarrhea, nausea or vomiting
 - increased heart rate
 - dizziness or lightheadedness
 - feelings of fear or panic

Preventing Anaphylaxis

- Awareness
 - know the causes and triggers
 - know emergency plan
- Avoidance
 - avoid contact with allergen
 - avoid sharing lunches, snacks, and utensils
 - avoid bulk foods
 - avoid cross-contamination
- Action
 - administer epinephrine
 - access emergency medical treatment

Epinephrine

- Epinephrine by injection is the treatment of choice for anaphylactic reactions
- Epinephrine works quickly to:
 - constrict blood vessels (maintains blood pressure & directs blood flow to major organs)
 - improve breathing
 - stimulate the heart
 - reverse hives and swelling around the face & lips
- There are no identified contraindications to the use of epinephrine in life-threatening allergic reactions in an otherwise healthy child

Epinephrine Auto-Injectors

- Auto-injectors are disposable, prefilled devices that automatically administer a single dose of epinephrine for the emergency treatment of anaphylaxis
- **Twinject™** and **EpiPen®** are the two brands of epinephrine auto-injectors available in Canada

Different Doses

- Epinephrine dosing is based on body weight
- There are 2 dosage strengths:
 - EpiPen® Jr. (green) / Twinject™
 - **0.15 mg**
 - for individuals weighing **15-30 kg (33-66 lbs)**
 - EpiPen® (yellow) / Twinject™
 - **0.30 mg**
 - for individuals weighing **30 kg+ (66 lbs+)**

Have 2 Doses on Hand

- World Health Organization (WHO) and Anaphylaxis Canada recommend that you always have a second dose of epinephrine available, or one dose for every 10 to 20 minutes of travel time to a medical emergency facility
- A second dose is necessary if symptoms do not subside within 10 minutes or reoccur

EpiPen®

- Grasp the auto-injector with the BLACK tip pointing down
- Pull off the GREY safety cap
- Swing and jab BLACK tip firmly into outer thigh so it “clicks” and hold for 10 seconds
- Remove EpiPen® and massage injected area
- Call 911 if not already initiated



Twinject™

- Contains 2 separate doses of epinephrine
- First dose delivered by auto-injector
- Second dose delivered manually by syringe



Twinject™- First Dose

- Pull off **GREEN** cap to expose **GREY** tip
- Pull off **RED** end cap
- Press **GREY** tip firmly into outer thigh until Twinject™ “clicks” and hold for 10 seconds
- Remove Twinject™ and massage injected area
- Call 911 if not already initiated



Twinject™- Preparing Second Dose

- Unscrew and remove GREY cap
Beware of exposed needle
- Holding BLUE hub at needle base, remove the syringe from the barrel
- Slide YELLOW collar off of plunger
- Monitor student, if there is no improvement within 10 minutes give second dose



Twinject™- Second Dose

- Insert needle into outer thigh
- Push plunger down completely
- Withdraw needle from thigh
- Carefully put the unit (needle first) back into the carrying tube



Tips For Using Auto-Injectors

- Never put fingers over the tip when removing the safety cap, or after the safety cap has been removed
- Keep auto-injectors at room temperature
- Occasionally inspect the solution through the viewing window, if it looks brown have it replaced
- Auto-injectors can be used directly through clothing

For More Information

- Anaphylaxis Canada
 - www.anaphylaxis.org
- Allergy/Asthma Information Association
 - www.aaia.ca
- Canadian Society of Allergy and Clinical Immunology
 - www.csaci.ca
- MOE Self-Learning Module for Teachers
 - www.eworkshop.on.ca/allergies