

## INFORMATION HANDBOOK

### ANAPHYLACTIC SHOCK

The information presented herein has been adapted from publications of the Allergy/ Asthma Information Association, Canadian Society of Allergy and Clinical Immunology and from other sources.

Please refer to BTPS Policy IHCD Administration of Medication/Medical Assistance to Students. This Handbook it is to be used only as an information reference for the development of school action plans for identified allergic students, with the full knowledge and participation of the allergic student's parent/guardian.

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## I. INTRODUCTION

As many as one percent of Canadians suffer from an extreme life-threatening allergy to certain foods, medications, or insect stings. For them, exposure to even a minute amount (1/5000th of a teaspoon) of the substance to which they are allergic can trigger anaphylactic shock.

Anaphylactic shock is an allergic reaction in all the major body-organ systems. Immediate medical intervention is necessary as the victim may suffer a drop in blood pressure, loss of consciousness and death. This can occur at any time up to four hours following exposure to the triggering substance. Even a small amount of the allergen can be fatal.

Although peanuts and peanut products are the most common foods that cause anaphylactic shock, shellfish, fish, eggs, sulphites, milk, or any other food can cause this dangerous condition in allergic individuals. **Each subsequent exposure to the allergen can increase the severity of the reaction.**

The emergency response to this condition is the administration of epinephrine by syringe, usually with an EpiPen®. Epinephrine can be safely administered with these devices by non-medical personnel with minimal training.

The information provided in this Handbook is intended to assist school personnel with strategies for the management of students who have had anaphylactic shock in the past and are at risk of anaphylactic shock.

## II. DEFINITION OF ANAPHYLACTIC SHOCK

Anaphylactic shock is an allergic reaction which may be fatal, and it occurs when an allergic individual is exposed to a particular material such as peanut products, nuts, eggs, fish or is stung by an insect such as a bee, hornet or wasp, or is given medication such as penicillin or aspirin.

## III. SYMPTOMS OF ANAPHYLACTIC SHOCK

In the case of a student who has had anaphylactic shock previously and who is exposed to a particular material, the occurrence of any of the following symptoms, in any combination, indicate anaphylactic shock:

- Hives and itchiness on any part of the body;
- Swelling of any body parts, especially eyelids, lips, face or tongue;
- Nausea, vomiting or diarrhea;
- Coughing, wheezing or change of voice;
- Difficulty breathing or swallowing;
- Throat tightness or closing;
- Panic or sense of doom;
- Fainting or loss of consciousness.

Immediate administration of the EpiPen® (epinephrine) is required in the instance where a student who has had anaphylactic shock previously exhibits any of the above symptoms following exposure to a particular material.

#### **IV. PREVENTION AND MANAGEMENT PROCEDURES**

When a student who is subject to extreme allergic reactions is identified by the parent, the principal will coordinate the development of procedures to enhance the safety of the student. The following elements will be addressed in the plan.

##### **A. Prevention**

A prevention plan to minimize the student's exposure to the triggering material, appropriate to the maturity and reliability of the student and the severity of the problem, should be developed. Prevention measures may include:

- Self-supervision;
- Education programs for classmates, school mates, parents;
- request to parents of students in classroom to assist in management of exposure to the allergen;
- and minimizing the presence of triggering material in school and school-related activities.

The Allergy/Asthma Information Association and the Canadian Society of Allergy and Clinical Immunology recommend that allergies to peanuts and peanut products require more stringent management plans. Reactions to peanuts are generally more severe than reactions to other foods. Therefore, strong initiatives to control exposure to peanut products are warranted.

Younger students are obviously more dependent and require a higher level of care. At the elementary school level, avoidance policies are highly desirable. In any school where a student who is at risk of anaphylactic shock is enrolled, the objective should be the establishment of a classroom or classrooms which are free of the substance which could place the allergic student at risk of anaphylactic shock. All parents of students enrolled in the class should be provided with information and informed that a student in the classroom is at risk of anaphylactic shock. Parents should be asked to exclude the particular food products or substances from lunches and snacks.

At the secondary level, the implementation of avoidance policies, although desirable, may be more difficult. However, efforts should be made to limit exposure to the risks.

In a school where a student who is at risk of anaphylactic shock is in attendance, school personnel should plan to control activities which increase risk. Students should be discouraged from eating lunches or snacks on playgrounds, in corridors, or in other facilities shared by students. Students should also be discouraged from sharing lunches. The use of food in art classes and home economics classes may have to be restricted. Parents who send treats to school for particular occasions should be asked to exercise caution. Suppliers of cafeteria services should be informed about the presence of a student who is at risk of anaphylactic shock and asked to institute avoidance policies.

##### **B. EpiPen® (epinephrine)**

EpiPens® (epinephrine) supplied by the parents must be available, and all staff who may be required to administer the medication must be trained to do so. A mechanism by which all staff can identify the students at risk should be available. Provision should be made for informing substitute teachers and other temporary staff about the student and their potential responsibilities. The number of locations at which EpiPens® (epinephrine) are kept should be determined based upon the severity of the problem as mutually determined by the parent, principal and medical personnel. The preferred approach would be for

the student to carry the EpiPen® (epinephrine) at all times. The regular EpiPen® (epinephrine) is used for persons over 33 pounds.

**In situations where it is uncertain that anaphylactic shock is occurring, it is advisable to administer the EpiPen® (epinephrine). There is very little chance of reaction to the medication and any reaction is usually very mild, but there can be serious consequences if an anaphylactic reaction is occurring, and the EpiPen® (epinephrine) is not given.**

### **C. Emergency Action**

As in the case of any potential crisis, advance planning will be helpful in successfully managing the event. In dealing with cases of anaphylactic shock, the emergency action is as follows:

- Get EpiPen® (epinephrine) and administer immediately.
- **HAVE SOMEONE CALL AN AMBULANCE** and advise of need for an EpiPen® (epinephrine).
- Unless student is resisting, lay student down, tilt head back and elevate legs. Cover and reassure student.
- Record the time at which EpiPen® (epinephrine) was administered.
- Have someone call the parent.
- If the ambulance has not arrived in 10-15 minutes, and breathing difficulties are present, administer a second EpiPen® (epinephrine).
- Even if symptoms subside, take student to hospital immediately.
- If possible, have a school staff member accompany the student to the hospital.
- Provide ambulance and/or hospital personnel with all relevant medical information concerning the student, as well as the time at which the EpiPen® (epinephrine) was administered.

In the case of a student who has had anaphylactic shock previously, particular attention has to be given to the management of field trips and other school activities off the school property. School personnel should ensure that the required emergency plan can be implemented if the need arises. School personnel should seek the advice and assistance of parents on these matters.

The implementation of prevention plans reduces, but does not eliminate risks. Even with the adoption of avoidance policies, it is unwise to assume that a school is free of a particular allergen.

### **V. RESPONSIBILITIES**

Where a student is injured or there is a medical emergency, teachers and school staff shall provide assistance to the student and obtain medical treatment where necessary.

Costs of medical treatment, including ambulances, shall be borne by the student or the parent.

In the absence of parental authorization, school staff have a legal obligation to administer the EpiPen® (epinephrine) and follow the emergency procedures when there is reasonable grounds to assume that the student is having an anaphylactic reaction.

The management of students who have severe allergies requires a clear understanding of the roles of the parent and school and health personnel. These responsibilities are described in the following sections.

### **A. School Boards**

The identification of students who are at risk or anaphylactic shock can be accomplished by including questions in the student registration form. School boards may include the following questions in the form:

- (a) does your child have a life-threatening allergy to certain foods, insect venom, medication or other material?  YES  NO
- (b) If your answer to the above question was yes,  
(i) Please indicate the substance to which your Child is allergic: \_\_\_\_\_
- (ii) has a medical doctor recommended that your child have an emergency medical kit EpiPen® available for use at school?  YES  NO

### **B. Parents**

Parents are required to assume a number of responsibilities. It is important that parents provide certain information to the principal at the time that the student is registered to attend school. Necessary forms and authorizations should be completed. In addition, parents may be required to delay their student's attendance at school until the necessary management plans are established.

Parents have specific responsibilities for providing

- the school principal with information about the student's allergy immediately upon registering the child;
- assistance to the principal by having the student's medical doctor complete the appropriate forms as indicated in BTPS Policy IHCD – Administration of Medication/Medical Assistance to Students
- the student with a carrying pouch and an unexpired EpiPen® (epinephrine) which will be available for use at school, during field trips and on the bus.
- Develop a medical plan, with the principal, parents and staff, as part of the student's Individual Program Plan (IPP).

### **C. Medical Health Personnel**

The specific responsibilities of medical health personnel are to

- assist with the identification of students who have life-threatening allergies;
- conduct education programs for parents and school staffs as requested;
- conduct training for school staff who may be required to administer the EpiPen® (epinephrine);
- assist the school principal and the parent with the development of an action plan, if necessary, for each identified student.

### **D. Principal**

The principal is responsible for planning and coordination with regard to the management of students who have life-threatening allergies. Upon being informed by the parent and/or through the student registration form that a student is at risk of anaphylactic shock, the principal shall

- provide, or forward to the parent, a copy of BTPS Policy IHCD Administration of Medication/Medical Assistance to Students and relevant forms (exhibits) for parental signature
- ensure that the student allergy is “red-flagged” in SIS
- provide an opportunity for the parent to attend a meeting with school personnel for the purpose of completing and/or reviewing the above forms when the student registers to attend the school and at regular intervals thereafter
- provide information about the student and the student’s allergies to the school staff, cafeteria staff, bus driver and substitute personnel who may be required to assess the student’s need for administration of the EpiPen® and administer the EpiPen®
- arrange for information and training session for staff who deal with the student, including the bus driver
- Develop a medical plan, with parents and staff, as part of the student’s IPP.

If the principal has information that a student who is registered at the school is at risk of anaphylactic shock and the parent, following notification, has not met the responsibilities as indicated in Part B above, the principal should:

- ensure that the student allergy is “red-flagged” in SIS
- provide information about the student and the student’s allergies to the school staff, cafeteria staff, bus driver and substitute personnel who may be required to assess the student’s need for administration of the EpiPen® and administer the EpiPen®
- arrange for information and training session for staff who deal with the student, including the bus driver
- Develop a medical plan, with parents and staff, as part of the student’s IPP.

When a student who is a risk of anaphylactic shock transfers to another school, the principal shall inform the principal of the receiving school that the student is at risk of anaphylactic shock and forward copies of all medical forms and IPP to the receiving school in the student’s portfolio.

## **VI. MEDICAL PLAN**

- A medical plan addressing extreme allergy management and prevention should be developed between the principal, parents and school staff for the student’s IPP. Signed copies of BTPS Policy IHCD Administration of Medication/Medical Assistance to Students Exhibits 1-5 and 8.1, 8.2 should be attached to the IPP.
- A completed copy of the IPP should be provided to the student’s teacher(s), substitutes and other staff who deal with the student.
- The IPP must be reviewed with the parents annually at the least or more often if necessary

## **VII. LIFE THREATENING ALLERGY ALERT FORM**

An life threatening allergy alert form (IHCD Exhibit 8.1 & 8.2) is a short version of the medical plan and is designed for posting within the school so that information is readily available in an emergency. This form is to be completed by the parent and the principal. The form should include section for recording information about the student’s allergy, symptoms of anaphylactic shock and the action which is appropriate in an emergency. A completed copy of the emergency allergy alert form should be posted in the staffroom, school office or other appropriate location within the school. A copy should also be provided to the student’s teacher(s), substitutes and other staff who deal with the student.

In instances where parents do not complete the form or give permission, posting of the form will not be possible.

### **VIII. SCHOOL LUNCH IDEAS**

School Lunch Ideas, contains suggestions for school lunches which do not include peanut butter. It will be necessary to develop a different list of ideas in cases where a student is allergic to any of the foods included in the list. In these instances, consultation with a nutritionist is desirable. This information could be provided to parents through school newsletters, at parent meetings, or attached to correspondence to parents concerning the presence of a child who is at risk of anaphylactic shock. See page 9.

### **IX. CONSULTATION WITH PARENTS**

The creation of classroom spaces and buses which are free from the substance which could place an allergic student at risk of anaphylactic shock is more likely to be achieved through the use of a consultative process. Efforts should be made to provide parents with information about the risks. A sample letter to parents is included as BTPS Policy IHCD Exhibit 9. This letter is designed to inform parents about the presence of a student who is at risk of anaphylactic shock following exposure to peanuts and peanut products. The letter can be modified for cases where students are at risk of anaphylactic shock following exposure to other substances. An invitation to a school meeting is included in the sample letter. Of course, the letter should be adapted to meet the particular circumstances.



## SCHOOL LUNCH IDEAS

Although no food is universally safe for all food allergic individuals, the following are some interesting suggestions for alternatives to peanut butter sandwiches.

### Sandwich Fillings:

- chicken - sliced, smoked or chicken salad;
- turkey - sliced, smoked or turkey salad;
- lean beef or ham - minced or sliced;
- pork - sliced or chopped, try adding applesauce or relish;
- lean luncheon or deli meats;
- cheese spread, or molasses;
- sliced cheddar with jam or mayonnaise;
- processed cheese with sliced apple, pickles, or crumbled bacon; • cream cheese with chopped maraschino cherries or chopped olives;
- sliced meat loaf.

### Tired of plain bread? Try:

whole wheat, oatmeal, rye, or pumpernickel;  
pita pockets or english muffins;  
bagels, hot dogs or hamburg buns, soft tortilla shells;

hard rolls, sub buns, biscuits, croissants, crackers or rice cakes.

Ideas for wide-mouth “hot” thermos:

spaghetti, macaroni, other pasta or rice dishes;  
soups, stews, and casseroles;  
chicken nuggets, or leftovers.

Try these in a wide-mouth “cold” thermos:

potato salad or pasta salad with cubes of cheese or meat; chef salad or vegetable salad with a separate dish of dressing; fruit salad with cottage cheese;  
cubes of meat or cheese to accompany crackers, carrot and celery sticks and a small container of dip.

Miscellaneous other favorites:

pizza;

whole grain muffins with yogurt or cheese; cooked wiener, split and stuffed with cheese;  
whole grain cold cereal - bring in separate covered bowl and add milk from a thermos or the school milk program.

To make sure a lunch is nutritionally balanced, enjoy a variety of foods from the four food groups in Canada’s Food Guide to Healthy Eating. To keep packed lunches cool, chill as much as possible overnight or try packing a small lunch-size ice pack in the lunch box or insulated lunch bag. Some items can even be packed frozen and will thaw in time to be eaten.

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