

NUMBER: XXX TITLE: Supporting Students with Type One

**Diabetes in Schools** 

# **BACKGROUND**

Type 1 Diabetes ("T1D") is a chronic autoimmune disease that affects children of all ages. T1D is characterized by the body's inability to produce insulin, resulting in rapid or slow changes to glucose levels in the blood. High and low blood glucose can be life-threatening. It is estimated that between 1 in 250 to 1 in 300 children are living with T1D, meaning that it is common disease in school settings.

These procedures are developed to ensure students living with T1D are receiving the supports that they need to be safe while at school or engaged in school activities. These procedures are meant to complement the "Administration of Medication to Students Policy".

While the roles and responsibilities of Yukon Education and parents are laid out in the 'Administration of Medication to Students Policy', these procedures outline the T1D-specific procedures required to be taken in each school. As such, individual school administrators are responsible for ensuring the contents of these procedures are adhered to.

## **DEFINITIONS**

*Glucagon* means a drug that is administered nasally as a means to treat hypoglycemia.

*Hypoglycemia* means the blood glucose level is below the student's normal range.

Hyperglycemia means the blood glucose level is above the student's normal range.

*Insulin* means a prescribed drug that is exogenously administered for the purpose of regulating blood glucose level.

Staff means the principal-identified faculty or administrative personnel that are trained to provide T1D supports.

#### **UNDERSTANDING TYPE 1 DIABETES**

T1D is an autoimmune disease. Persons who have T1D acquired it through no fault of their own and must attend to the disease 24-hours/day for the rest of their life. There is no 'overcoming' T1D, and it cannot be cured through diet and exercise. The only treatment for T1D is a strict insulin regiment.

T1D is a complex disease and is poorly understood. It is often difficult to manage and sometimes takes many years to develop the expertise needed to control it adequately. However, there are certain simple steps that can be taken to reduce the likelihood of harm. These steps include understanding these procedures, having a basic knowledge of the difficulties associated in managing T1D, having competency to respond to hypoglycemia or hyperglycemia, and having an openness to learn about how best to support children with T1D.

#### ROLE OF THE ADMINISTRATOR

School administrators have the overall responsibility for ensuring the health and safety of students while at school.

As outlined in the Administration of Medication to Students policy, it is the responsibility of the parent or guardian to inform the school of the child's medical condition, supply prescribed or non-prescribed medication, complete and supply documents, and advise the school in writing of any changes in their child's medical condition. However, some parents struggle to understand T1D and may not be able to adequately convey the medical needs of the student. In an effort to provide a collaborative approach to care, the T1D Support Worker, identified in Appendix A, will be available to provide parents support in completing the Medical Information Form.

As part of the school's Emergency Response Team plan, the school principal is responsible for identifying the staff who will be required to receive T1D training and for ensuring staff adherence to these procedures. Ideally, one of these individuals will have an identified student with T1D in their classroom.

The principal shall endeavour to maintain at least one staff member at school while the school is in session.

The principal is responsible for ensuring all of a school's faculty and administrative personnel are fully informed of which staff are fully trained in T1D support.

## **ROLE OF THE STAFF**

At least two staff members will be trained to provide T1D support<sup>1</sup>. Support will include:

<sup>&</sup>lt;sup>1</sup> Schools with fewer than five staff are only required to have one staff member trained in T1D support. Where noted, this support may fall under the responsibilities of the principal.

- a) Ongoing training in T1D management, including strong familiarity with the signs and symptoms of both hypoglycemia (Appendix B) and hyperglycemia (Appendix C);
- b) Providing students with a clean, convenient, and safe area for diabetes self-care, and respecting student preference for privacy<sup>2</sup>;
- c) Where a student is identified by the parent as not having the capacity to self-manage insulin delivery, the supervision of the student's meals and snacks to ensure they have eaten on time and in full in accordance with the planned insulin delivery schedule;
- d) Ensuring adequate time is provided for the student to consume the meal or snack;
- e) Competency in when and how to administer glucagon;
- f) Competency in administration of insulin if student is unable to self-manage and requires strict adherence to planned insulin schedule;
- g) Competency in conducting blood glucose testing if student is unable to selfmanage;
- h) Ensuring there is adequate accommodation for examination, tests, and guizzes;
- Ensuring students are allowed to keep diabetes supplies on their desk or on their person at all times. These supplies include, but are not limited to blood glucose meter, cell phone<sup>3</sup>, insulin pens, and snacks; and
- j) Ensuring attendance-incentive practices are not applied when a student with T1D misses school due to the management of T1D, including medical appointments and missed classes due to required rest<sup>4</sup>.

<sup>&</sup>lt;sup>2</sup> The principal is responsible for identifying the location of this space.

<sup>&</sup>lt;sup>3</sup> Cell phones are often connected to Automated Insulin Delivery and Continuous Glucose Monitors.

<sup>&</sup>lt;sup>4</sup> In conjunction with the School Council, and as per the Education Act, this is a principal's responsibility.

#### APPENDIX A

#### CHRONIC CONDITIONS SUPPORT PROGRAM AND TRAINING INITIATIVES

## Health and Social Services - Chronic Conditions Support Program

The Chronic Conditions Support Program (CCSP) houses the T1D Support Worker and the T1D Training Initiatives.

## **T1D Support Worker**

The CCSP provides a dedicated T1D Support Worker who will provide resources for T1D supports in schools. This individual should be the school's primary contact in ensuring support competencies are being met by staff who have undergone training. *To access the T1D Support Worker, contact* 

## Training

CCSP provides the standard clinical information training, including:

- Daily management of T1D, including food intake, physical activity, insulin, and illness
- Glucose monitoring
- Hypoglycemia symptoms and how to respond
- Severe hypoglycemia symptoms and how to respond
- Hyperglycemia symptoms and how to respond

CCSP also provides supports for child-specific training plans, including:

- Individual symptoms of hypoglycemia and hyperglycemia
- Type and location of fast-acting sugars
- Daily plans, including meals and snacks, physical activity, glucose monitoring, and insulin delivery.

## **Informal and Peer Support Training**

## **Diabetes at School**

In partnership with the Canadian Pediatric Endocrine Group and Diabetes Canada, the Canadian Paediatric Society provides easily accessible training and resources to help

school staff support children with T1D. There are several initiatives within the Diabetes at School program that can help staff become well-versed in providing T1D supports in schools

See diabetesatschool.ca for more information.

## **Yukon T1D Support Network**

The Yukon T1D Support Network is a non-profit peer support group that can provide staff with recommendations on what considerations should be made in the process of supporting children living with T1D.

Contact diabetesyukon.ca for more information.

# APPENDIX B HYPOGLYCEMIA

There are two main conditions that are of primary concern in persons with T1D: hypoglycemia and hyperglycemia. Hypoglycemia occurs when blood glucose drops below a level specific to the individual with T1D. **Hypoglycemia can be life-threatening and may require immediate intervention.** 

Hypoglycemia can be caused by:

- Having too much insulin
- Skipped or delayed meals or no carbohydrates in the meals
- Unplanned exercise or intense aerobic exercise
- Drinking alcohol

The following early warning signs and symptoms may be present when a child is entering hypoglycemia:

- Tiredness
- Dizzy or shaky
- Hunger
- Irritation, tearfulness or anxiety

As hypoglycemia advances, signs and symptoms include the following:

- Weakness
- Blurry vision
- Slurred speech
- Confusion

At this stage, a child may be entering severe hypoglycemia. It is important to get a blood glucose reading and to take the actions that may be identified in the child's ICP. If information from the ICP is not readily available and the blood glucose reading is less than 3.5mmol/L, provide the child with a sugary drink (no diet drinks) and ensure they are able to consume the drink.

# If the child becomes unconscious, administer glucagon immediately.

(If the child has consumed alcohol prior to entering hypoglycemia, call 9-1-1). If, after a few minutes of administering glucagon, the child is awake and alert, bring the child to a recovery room and contact the parent or guardian. Ensure a staff member is there to monitor blood glucose levels and to provide appropriate food and drink.

If a child has a seizure caused by low glucose level, ensure the child is resting on something soft and remove any dangerous items from the immediate vicinity. **If the seizure lasts for more than 3 minutes, call 9-1-1.** After the seizure stops, give the child a sugary drink. Monitor the child and the blood glucose level.

Untreated hypoglycemia is life-threatening and it is important that staff understand the steps needed to treat hypoglycemia.

# APPENDIX C HYPERGLYCEMIA

Hyperglycemia occurs when there is too much glucose in the blood. Untreated, it can become severe and cause problems that require emergency care. Over the long-term, hyperglycemia can cause many complications that affect the heart, eyes, kidneys, and nerves.

Hyperglycemia can be caused by:

- Not enough insulin in the bloodstream
- Not following diabetes plan
- Having an infection or an illness
- Being injured
- Experiencing emotional distress

Although there are many reasons why hyperglycemia occurs, it is important to recognize that some children experience diabetes distress, a phenomenon in which the person with T1D becomes so tired of managing their disease that they stop their insulin regiment. It is important to identify when this might occur so that appropriate help can be provided.

Symptoms of hyperglycemia may occur over hours or over days or weeks.

Recognizing signs of hyperglycemia is very important to reduce the possibility of harm. Early signs include:

- Frequent urination
- Increased thirst
- Blurred vision
- Weakness or tiredness
- Rapid weight loss

As toxic acid builds in the blood stream, signs of hyperglycemia increase. These signs

## include:

- Nausea and vomiting
- Abdominal pain
- Fruity-smelling breath
- Rapid breathing
- Loss of consciousness

When hyperglycemia is suspected, staff need to request a reading of the child's blood glucose. If the child refuses, the parent or guardian shall be notified. If the child's blood glucose reading indicates it is higher than their normal range, the ICP needs to be reviewed to determine the appropriate next steps.

Hyperglycemia presents the same in persons who have not received diagnosis. If the symptoms are present in any student, contact the parent or guardian to inform them of your concerns.