Diabetes Management and Resource Guide

MAINE DEPARTMENT OF EDUCATION
OFFICE OF SCHOOL AND STUDENT SUPPORTS
COORDINATED SCHOOL HEALTH

Table of Contents

The Maine Department of Education provides this Guide for School Health Services: Diabetes Management and Resource Guide in accordance with Maine Revised Statutes Title 20-A section 6403-A (5) which directs the commissioner to issue guidelines on the provision of school health services and health-related activities.

While this document intends to summarize currently available resources for the school nurse, it does not replace clinical nursing judgment for their practice. The school nurse is responsible for complying with all federal, state, and local laws, rules, regulations, and ordinances as well as relevant standards of practice.

Introduction

Diabetes is a chronic health condition in a school population that can lead to complications during the school day. The school nurse is the catalyst for care management for students with diabetes. The management includes collaboration with family, care coordination with healthcare providers, facilitating team meetings related to care, coordinating training for identified staff to provide emergency care, and maintaining documentation.[1] It is important to implement a comprehensive diabetes care plan and share it with all staff members and coaches involved with the student, ensuring the appropriate care during the school day, on the bus, during field trips, or at athletic events. The purpose of this resource guide is to assist school nurses, educators, and all school staff members to help students with diabetes participate fully and meet goals pertaining to glucose control and stability, academics, physical education, and extracurricular activities. This can be accomplished through clinical assessments, monitoring, nutrition, exercise, staff/student education and risk reduction measures.[2]

This document provides relevant up to date information collected after review and collection of the most current content available from the National Institute of Health (NIH), American Diabetes Association (ADA), National Association of School Nurses (NASN) and multiple neighboring states to support the safest care practices for students with diabetes in Maine schools. The Maine Department of Education recognizes the work accomplished and provided to school nurses by the NASN. Included is the recently updated Guidelines, and Diabetes Toolkit, *School Nursing Evidence-Based Clinical Practice Guideline: Students with Type 1 Diabetes*. There are several sample policies and procedures, care plans and training slides, visual representations of content as well as professional development opportunities. Explore this live document, NASN will continue to keep content up to date. Some pages of interest:

School nurse assessment of self-management of type 1 diabetes (T1D)
Student self-management of T1D inventory
Sample hypoglycemia emergency care plan
Sample hyperglycemia emergency care plan
Sample 504
Sample USP competency checklist
Parental authorization for glucagon injection
Sample insulin administration log
Links to diabetes technology and customer support
Diabetes medications fact sheet
Tiered training discussion and slides
Additional resources and professional development opportunities

Legislation

- Americans with Disabilities Act (ADA)
- Individuals with Disabilities Education Act (IDEA)
- Family Educational Rights and Privacy Act (FERPA)
- Free and Appropriate Public Education (FAPE)
- Section 504 of the Rehabilitation Act of 1973
- Frequently Asked Questions About Section 504 and the Education of Children with Disabilities

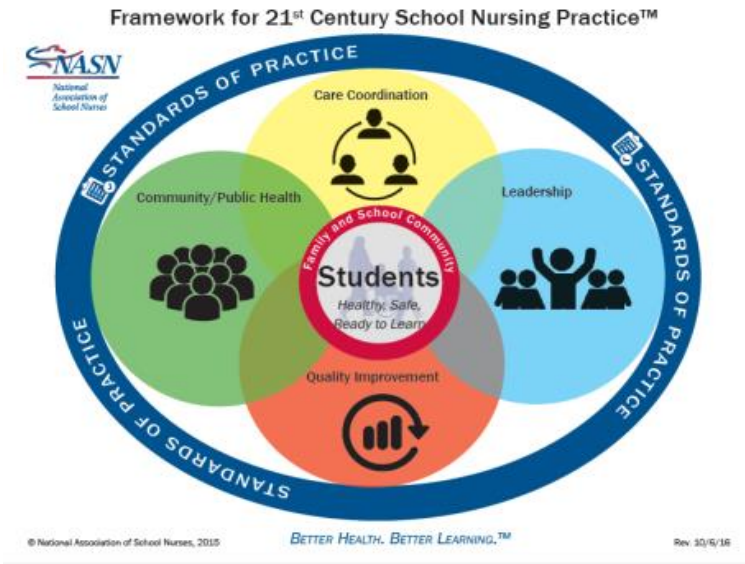
Federal laws mandate that all students attending public schools have access to health care during the school day and during extracurricular school activities, if necessary, for full participation.[3,4] The level of self-management of diabetes during a school day is determined on an individual basis in collaboration with the student, parent, and health care provider.[3] A diabetes medical management plan (DMMP) provided by the physician will guide the development of the 504 plans, outlining what accommodations the student will need with parental input and consent.[3] The school district has a legal obligation to ensure that these accommodations are provided as described in the plan.[3] The individual health plan (IHP) and 504 plan may be included in the same document. ADA Sample 504 Plan

Role of the School Nurse in Diabetes Management

Diabetes requires a team approach. The school nurse collaborates with the student, family, and healthcare providers along with school staff to help meet and maintain student goals at school.[5] As with other health conditions in school, the school health team is central to student safety. For more information about assembling school health teams, refer to the Maine Guidelines for School Health Services. Complications of diabetes can be dramatically reduced or prevented with intensive glucose control.[5] An individualized plan of care must be developed for each student so they can fully participate in all school activities.

The school nurse works to improve the health and safety of school-age children with diabetes by utilizing and successfully implementing guidelines provided within this document.

- Improved management of diabetes
- Decreased time spent out of the classroom
- Improved student academic success
- Full participation in all school activities
- Decreased hospitalizations
- Improved quality of life
- Improved mental well being[5]



The nurse, in collaboration with family and healthcare providers, can assist the student with diabetes reach age-appropriate goals, independence and life longevity. (Appendix E)

Coordination/Oversight by the School Nurse

Maine Revised Statutes, Title 32, Section 2102, referred to as the Nurse Practice Act, authorizes registered professional nurses to delegate tasks within their scope of practice to licensed practical nurses and certified nursing assistants only.[6] Nurses can provide coordination and oversight for unlicensed school personnel (USP) as described in 02-380, Ch 6 *Regulations Relating to Coordination and Oversight of Patient Care Services by Unlicensed Health Care Assistive Personnel*.[6] While the laws and regulations are silent, the Maine Department of Education recommends as best practice that only a nurse give injectable medication, except in an emergency. Coordination, and oversight may include medication administration, blood sugar monitoring, and emergency interventions including the administration of glucagon.[7]

The school nurse's responsibility in oversight includes:

- Identify needs of student
- Identify tasks to be performed
- Provide directions for tasks
- Determine the ability of USP
- Establish appropriate tasks for USP
- Monitor USP's reporting and documentation of tasks
- Educate USP to report unusual findings to nurse
- Evaluate performance of task
- Initiate corrective action when necessary
- Continued supervision and evaluation of tasks[8]

> *"Indirect supervision means the supervision of an unlicensed school staff member when the school nurse or other health provider is not physically available on site but immediately available by telephone."* [7]

The Decision Tree for Coordination and Oversight outlines the steps school nurses should follow in planning for a student who requires medication, or specific nursing tasks in school. The school nurse is responsible for developing and revising the student's individualized healthcare plan (IHP) and for following the steps of the decision tree. The school nurse's responsibility includes assuring that USPs are not doing any "health counseling, teaching or any task that requires independent, specialized nursing knowledge, skill or judgment"[8] according to Maine State Board of Nursing, Rules Ch. 6.

Considerations

1. *Are the student's medical needs stable?*
2. *Does the task require nursing assessment?*
3. *Does the task require nursing judgment?*
4. *Does the task have a predictable outcome?*
5. *Is the task within the knowledge, skill, and ability of the USP?*
6. *Is there availability for ongoing supervision and evaluation?*[8]

Diabetes Mellitus Overview

Diabetes mellitus (DM) is a group of diseases with pathology in glucose utilization due to beta cell destruction, insulin resistance, dysregulation of insulin release, or scarring of the pancreas.[9] Glucose is the body's main source of energy. Insulin, produced in the pancreas, enables cell surfaces to allow glucose to enter the cells for utilization, or to store for later use. Without DM, the pancreas automatically produces the perfect amount of insulin directly related to food intake, stress, and activity. Without insulin, blood glucose levels rise to high levels, and left untreated will eventually cause excess glucose to be filtered and excreted from the kidneys as waste, in urine.[10] This causes frequent urination and extreme thirst, which are often the first noticeable signs of diabetes and can lead to dehydration and weight loss.[10] Over time, elevated glucose levels can lead to serious health problems such as heart disease, vision loss, and kidney disease.[11]

Symptoms of type 1 diabetes can start quickly, in a matter of weeks while symptoms of type 2 develop slowly often taking several years.[11] Extended periods of hyperglycemia, even if not at critical levels, can lead to heart, kidney, nerve, and eye impairment.[15] Often the symptoms of hyperglycemia fail to present until the blood glucose level is higher than 180mg/dl to 250mg/dl. Once blood glucose levels are high enough that the individual is feeling these symptoms, some damage has likely occurred.[16]

Type 1 Diabetes

Type 1 diabetes accounts for approximately 5-10% of people with diabetes.[11] Environmental or viral exposures may trigger an autoimmune reaction, causing the destruction and elimination of healthy cells in the pancreas, resulting in insulin deficiency and hyperglycemia.[12] Individuals with DM maintain homeostasis with proper nutrition, physical activity and supplemental insulin support.[12] Type 1 diabetes is usually diagnosed in children, teens, and young adults. The onset of symptoms develops quickly, and insulin levels may fluctuate in the early stages. Symptoms include increased thirst, dry mouth and skin, frequent urination and/or bedwetting, increased perspiration, hunger, fatigue, and blurred vision.[11] After diagnosis, some people go through a honeymoon phase after insulin therapy has begun while the pancreas has partial function. The decreased symptoms can last from a week to a year depending on the individual but will return and must be treated.[13]

Type 2 Diabetes

Type 2 diabetes is the result of the body's inability to utilize insulin properly. Historically type 2 diabetes has occurred primarily in adults, however, recently it is found more often in children, typically between the ages of 10-19.[11] Symptoms of the onset of type 2 diabetes mimic the symptoms of type 1 diabetes but do not develop as quickly.[11] The primary risk factor for developing type 2 diabetes is high body fat, as fat tissue contributes to insulin resistance.[14] Other risk factors include family history, maternal gestational diabetes, inactivity, and some ethnicities.[14] Appropriate treatment and lifestyle changes are important to avoid microvascular and macrovascular complications to the eyes, brain, heart, kidneys, feet, and nerves.[11,1]

HIGH BLOOD SUGAR[17]

Hyperglycemia Causes

- Not enough insulin
- Pump malfunction
- Too much food
- Decreased activity
- Illness, infection, stress

What to do

- Check blood sugar if possible
- Check for ketones per roadmap, if possible
- Allow unrestricted fluids and bathroom use
- Call parents

Symptoms to watch for

Increased thirst

Increased urination

Fatigue

High blood sugar

Ketones in urine

If left untreated

Weakness, body aches, pain in abdomen

Heavy labored breathing

Loss of appetite, nausea, and vomiting

LOW BLOOD SUGAR

Symptoms to watch for

Cold sweats

Pale appearance

Faint or dizzy

Headache

Pounding heart, shaking, nervous

Blurred vision

Hunger

Irritability

If left untreated

Loss of consciousness, seizure, coma

Hypoglycemia Causes

- Too much insulin
- Not enough food, delayed meal
- High activity

What to do

- Never leave student alone, escort to health office
- Check blood sugar level, and follow roadmap
- If unable to test, treat for low blood sugar
- If unconscious, do not give anything by mouth
- Give glucagon, turn on side and call 911

Hypoglycemia

Hypoglycemia happens when circulating glucose in the bloodstream is low, not fueling the body and brain effectively. Typically, 70 mg/dL or below should serve as an alert for hypoglycemia, although individuals experience symptoms at different levels.[18] Signs and symptoms include looking pale, shakiness, sweating, headache, nausea, irregular heartbeat, irritability, difficulty concentrating, dizziness, and/or tingling of lips.[18] Hypoglycemia needs immediate treatment which involves restoring the glucose levels in the body. The CDC suggests following the 15-15 rule if blood sugar is between 55-69mg/dl.[19] If not treated quickly, the blood sugar levels can continue to drop causing worsening symptoms such as confusion, loss of coordination, slurred speech, tunnel vision, unresponsiveness, and seizures.[18]

15-15 Rule

For a blood glucose level between 55-69 mg/dL:

- Eat 15 grams of carbohydrates
- Recheck in 15 minutes

Glucagon

Glucagon is a hormone produced in the pancreas that the body utilizes to raise blood glucose when levels drop.[20] Individuals with type 1 diabetes have developed an inability to produce sufficient glucagon to regulate glucose levels, which can result in dangerously low glucose levels, a diabetic emergency, causing lack of consciousness, seizure, coma, and death.[18, 20] Treatment for an individual that is unconscious or unable to swallow is available as a synthetic form of glucagon. This can be administered as an injection, inhaled nasal dry powder, or nasal spray.[20] The nasal spray is the first choice for use in children lending to its ease of use and delivering the appropriate dose rapidly. Nausea and vomiting are common side effects of glucagon, to prevent aspiration the individual should be turned on side after administration, then call 911.[20] Glucagon is a lifesaving medication that can be administered in Maine schools, to include by trained UAP's.[7] According to Chapter 40, this requires a local written policy that includes:

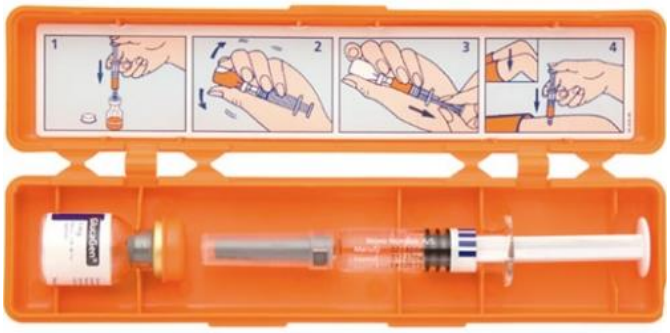
- Appropriate training, as outlined in Maine Guide to School Health Services: 2022 Medication Administration in Maine Schools: Evidence Based Guidelines
- An Individualized Health Plan and Emergency plan indicating medications needed for management in school
- Current written request from parent/guardian, with understanding that glucagon may be administered by USP
- Current written order from the prescribing healthcare provider including the name of student, medication, dose, route and when to administer[7]

Rescue Medicines for Diabetes: Glucagon

Glucagon is prescribed, and orders are written by the student's Endocrinologist or Healthcare provider for use in an emergency. The family will supply a dose to the school to be stored according to manufacturer's directions. The advancements in diabetes care have produced many ways that glucagon is packaged.[20]

Glucagon & Other Emergency Glucose Products

The following are common kits which are injectable glucagon, a liquid that is introduced into powder, to be reconstituted and drawn up for injection.



Glucagon comes premixed ready to use in a syringe or pen form, as seen (below).

A convenient form of glucagon comes as a dry powder nasal spray (below).
Each intranasal device contains only one dose of glucagon.
DO NOT prime or test the device
Glucagon (Nasal Route) Instructions for Use

Dasiglucagon (right)
A next-generation ready to use glucagon analog recently approved for use.[21]

IMPORTANT INFORMATION FOR ALL SCHOOL STAFF

Please be advised that when blood sugar drops to low levels individuals may suffer severe confusion, visual disturbances, emotional dysregulation, appear fatigued, or experience an inability to communicate effectively.

For <u>any</u> student experiencing any of these symptoms:

CALL THE NURSE. DO NOT SEND THE STUDENT ALONE

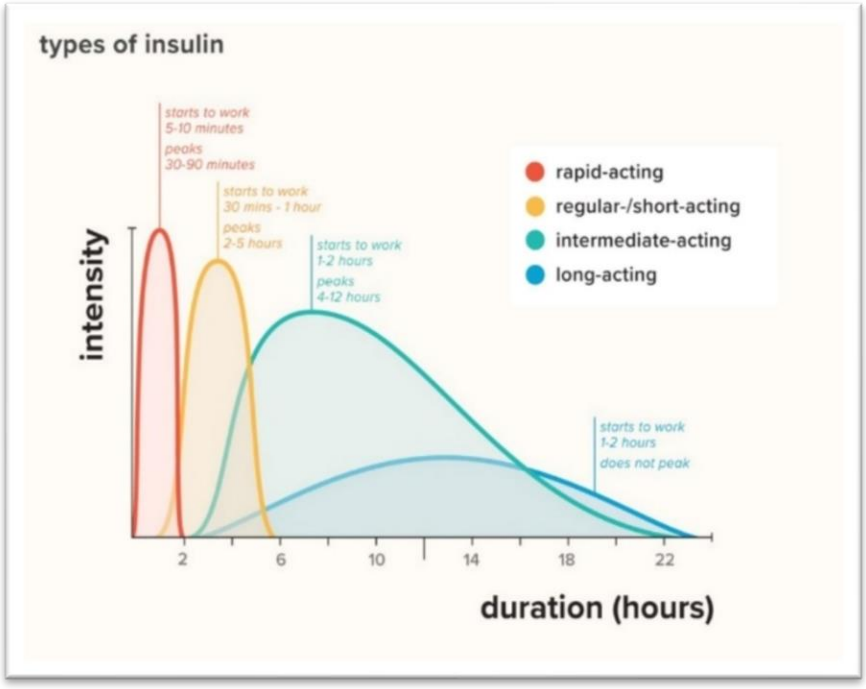
If reasonable, consider beginning treatment for low blood sugar in the classroom[20]

Hyperglycemia

Diabetic ketoacidosis (DKA) is a serious complication in people with type 1 diabetes that can be life-threatening if left untreated. DKA happens when the body lacks sufficient insulin to allow glucose entrance into cells, leaving high amounts of glucose in the bloodstream. Without insulin, the body produces blood acids called ketones from the breakdown of fats for energy.[20,22] The body's rapid production of ketones causes elevation of levels, that can eventually lead to diabetic ketoacidosis. Symptoms often develop slowly, however some individuals experience symptoms within 24 hours.[22] Increased thirst and urination are often experienced first. If left untreated symptoms can progress quickly presenting as rapid breathing, fruity-smelling breath, headache, dry mouth and skin, flushed face, fatigue, nausea, vomiting, and abdominal pain.[22] The main causes of DKA are illness, stress, and insufficient insulin. Treatment includes giving insulin, IV fluids, and very close monitoring of blood sugar levels and blood acid levels.[23]

Insulin

The American Diabetes Association (ADA) recommends a target glucose range between 70-180 mg/dl more than 70% of the time, called time in range (TIR), with an A1C goal of less than 7%.[26] With DM, supplemental insulin is necessary to meet that goal. There are many different types of insulin mimicking the body's natural response, with varying onset of action and duration. An individual without diabetes produces insulin and glucagon in response to activity, stress, illness and food intake to maintain a stable blood glucose level. The continuous secretion of insulin, can be referred to as the basal rate. Long acting insulin mimics the body's natural basal rate. When a meal is consumed the body secretes additional insulin, or a bolus. With diabetes, short acting insulin is given at mealtime, as a bolus.



It is important for the school nurse to understand the varying insulin types that a student may be using. The type of insulins used will be determined by a medical provider and specified in the students DMMP.[26]

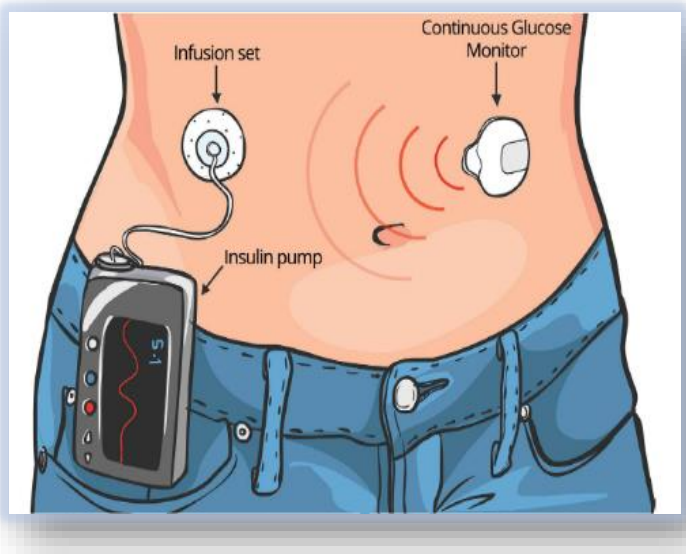
Insulin Pump Therapy and Continuous Glucose Monitor

Traditional management of capillary blood glucose testing, multiple daily injections of insulin, and manual corrections of high blood glucose levels have been replaced with a continuous glucose monitor (CGM) and rapid-acting insulins delivered via insulin pumps.[24,25,26] A CGM system works through a tiny sensor inserted under the skin. Sensors may be inserted on the abdomen, arms, or the upper buttocks depending on age. The sensor measures the glucose levels within the interstitial fluid, rather than capillary blood, every few minutes and wirelessly transmits data to a monitor, or smartphone, for continuous readings.[26] The CGM device alerts the student when a blood glucose level requires immediate action.[20] and can be set up to alert the school nurse if she has a smart device that is connected to the CGM system. Alarms will be specified in the DMMP, in conjunction with parent preferences. Continuous remote monitoring of blood glucose by the school nurse may be warranted in students who are preschool age, are non-verbal, have impaired cognition, or have severe hypoglycemia unawareness.[28] Parents may supply a device to stay at school for monitoring, and have a discussion related to the option of data sharing. Local policy should prohibit school nurses and/or staff from utilizing personal devices. ADA Guidelines for the use of CGM and other sensors at school.

The insulin pump contains a cartridge of insulin and is programed to deliver a basal rate, or continuous dose of insulin through a tiny canula.[26] When additional insulin is necessary with meals or to correct high glucose levels a calculated dose, or bolus, is administered via the pump.[26] The combination of a CGM and an insulin pump can help avoid fluctuations and afford individuals, families, and school staff the ability to monitor and treat glucose levels in real-time, with alerts for predictive or actual highs or lows. Research has shown that continuous glucose monitoring is now the standard of care to help manage diabetes due to this ability to help maintain tight glucose control.[27]

Communication between parent/guardian and the school nurse is ongoing. The parent is responsible for setting alerts and alarm parameters and discussing appropriate actions necessary to keep students' disruptions to a minimum, enhancing learning.

There are several different types of insulin pumps that will provide a continuous, or basal rate as well as corrections or bolus doses under the user's direction. Included on page 15 in the additional resources section is a list of common devices. With rapid changes in technology, it is important to research the specific insulin pump or CGM that your individual student has and become familiar with, for the most current information.



Care Plans at School

The school nurse must have a care plan for the student with diabetes that includes basic management, emergency management and situations specific for students who ride the bus or walk home. Decisions regarding parameters for riding the bus are controlled locally, in conjunction with physician orders, parental agreement and district procedures.[5] The following are some examples of resources:

NASN Diabetes Resources

ADA Diabetes Medical Management Plan

NIH Individualized Health Care Plan (IHP)

NDEP Hyperglycemia Emergency Care Plan

NDEP Hypoglycemia Emergency Care Plan

Training

The school nurse is accountable for the quality of health care he/she provides and for the coordination of training as well as oversight of unlicensed staff performing health tasks. The preparation of the health plan will help assure the quality of care. The nurse has the responsibility of counseling and coordinating with the student's parents, physician, student, teachers, transportation personnel and coaches to assure a safe learning environment.[5]

Diabetes Self-Management Education and Support Site Directory

ADA Find a Diabetes Education Program

NASN Type 1 Diabetes TOOLKIT

ADA Diabetes Care Tasks in School: Training

Considerations

As a school nurse it is important to have a thorough understanding of diversity, equity, and inclusion (DEI), and work towards health equity within the community by identifying racial discrimination and disparities that affect students' health and education.
Considerations include:

- Build relationships and collaborate
- Identify student and family needs
- Accept and celebrate different cultures
- Explore your personal biases and beliefs
- Validate student and family experiences

Technology & Diabetes

While teaching diabetes care, it is recommended to utilize resources provided by professional organizations, being sure to consider:

- Specific device information, safe handling, and contact information for support
- How to suspend pump, review history, charge or change batteries
- How to give a bolus with meal, a correction, or a combination
- When to check ketones
- When and how to call the school nurse, family, or healthcare provider[20]

Family Engagement

Technology is an asset in diabetes care. Technology includes insulin delivery methods, blood glucose monitoring, data sharing and the necessary components. Some thoughts to consider:

- Access to a CGM receiver
- Ability to keep receiver charged
- Access to a secure wireless network
- Capability of remote communication
- The potential complication of insulin pump failure

Training

Additional Resources

National Diabetes Education Program
Helping the Student with Diabetes Succeed: A Guide for School Personnel

American Diabetes Association
Covid-19 and Diabetes

Continuous Glucose Monitoring Video

Support for parents
https://www.diabetesresearch.org/PEP-Squad

Examples of Food Applications

https://www.calorieking.com/us/en/foods/search
https://figwee.com/

Common pumps		
Medtronic™	▪ MiniMed™ 630G, 670G, 770G ▪ MiniMed™ 780G (pending FDA approval)	▪ User Guides and Manuals ▪ Medtronic MiniMed 770G System
Tandem ® Diabetes Care	• t:slimX2® with basal IQ or control IQ technology	• User Guide for Control-IQ • User Guide for Basal-IQ • t:slim x2
Patch Pumps		
Insulet Corp	▪ Omnipod ▪ Omnipod DASH ▪ Omnipod 5	▪ Caregiver Guide ▪ Omnipod video

Continuous Glucose Monitors

- Abbot Freestyle Libre
- Dexcom G6
- Eversense
- Guardian 3 - Medtronic's
- Waveform Cascade

Appendix A

Action for the School Nurse

Once it is identified that a student with diabetes will be attending school, this checklist may be a useful guide for the school nurse.

1. Gather data

- ☐ Obtain and review student's current diabetes plan from provider; here is a comprehensive plan provided by the ADA Diabetes Medical Management Plan
- ☐ Arrange conference with student and guardians
- ☐ Utilizing an intake assessment. An example that may be used can be found (Appendix C)
- ☐ Familiarize yourself with student's equipment
- ☐ Refer to the Maine Department of Education Decision Tree for Coordination and Oversight
- ☐ Review Maine law regarding diabetes in the school setting, Safe at School State Laws, Maine

2. Plan and implement training

- ☐ Identify all staff that will have contact with student, (teachers, coaches, PE instructor, lunchroom staff, and bus driver) and coordinate training. Find a Diabetes Education Program in Your Area
- ☐ Include those involved in the 504, IEP and other education plans
- ☐ After training has been completed, review roles in carrying out the plan, how roles relate, and when/where to seek help

3. Conduct assessment and develop plans for student

- ☐ Nursing assessment of student, utilizing input from parents/guardian, student, and provider
- ☐ Create an IHP to identify functional needs, establish goals, and delineate intervention for goals, NASN provides examples
- ☐ Create emergency plans to share with all staff, including substitute staff
- ☐ Create a transportation plan. An example that may be used is provided (Appendix G)
- ☐ Create emergency kits for disaster preparedness. An example that may be used is provided (Appendix B)
- ☐ Develop/implement student's 504 plan or IEP if indicated. Review ADA's Section 504 Plan

4. Facilitate school health team meeting

- ☐ Review individual plan of care
- ☐ Review emergency plan with all staff, including substitute staff
- ☐ Monitor compliance and understanding of plan
- ☐ Facilitate follow-up meetings to discuss concerns and updates, and evaluate for potential changes to plan of care

Appendix B

Diabetes Equipment and Emergency Supplies

Provided by Parent

Student: _____ DOB:_____

School: _____Grade: _____

Nurse to Complete: *Date Form sent home _____Date Form returned to school _____Include IHP copy with disaster supplies. Stored as follows*_____

Specify type of snacks: ❑ Daily Snacks (for AM/PM) ❑ Extra Snacks (for before, after, and/or during exercise)	**Glucose Meter Kit** _____ Brand/Model: (Includes meter, testing strips, lancing device with lancets, alcohol swab, gauze, spot bandage)
Low Blood Glucose Supplies (Provide item from selected category – 5-day supply preferable) ❑ Fast-acting carbohydrate drinks: (Apple juice and/or orange juice) ❑ Glucose tablets: 1-2 packages preferred ❑ Gummy bears ❑ Glucose gel products: 1-2 preferred ❑ Cakemate Gel ™:(not frosting), (19 gm., mini-purse size), 1-2 preferred ❑ Prepackaged snacks: (such as crackers with cheese or peanut butter) **High Blood Glucose Supplies** (Check those that apply) ❑ Ketone test strips/bottle or meter kit ❑ Urine cup ❑ Water bottle	**Insulin Supplies** ❑ Insulin pen ❑ Pump cartridge ❑ Insulin and syringes ❑ Batteries ❑ Extra pump supplies, such as infusion set ❑ Tape ❑ Vial of insulin ❑ Syringes ❑ Insertion device ❑ Insulin supplies storage location: _____ **Emergency Supplies** ❑ Glucagon kit stored: _____ Expiration date of glucagon vial:_____

Recommended 3-Day Disaster Diabetes Supplies (Check those that apply)

- ❑ Vial of insulin; 6 syringes, or
- ❑ Insulin pen with cartridge and needles
- ❑ Blood glucose testing kit (testing strips, lancing device with lancets)
- ❑ Glucose gel product and glucose tablets
- ❑ Glucagon kit
- ❑ Food supply (include daily meal plan) stored as follows: _____
- ❑ Ketone strips/plastic cup
- ❑ Pump supplies, as listed above
- ❑ Extra battery for pump
- ❑ Other Supplies – specify:

Parent Signature _____ Date _____

Appendix C

School Nurse Intake Interview

For a new student with diabetes

Name _____Date of Birth _____Grade _____Teacher _____

Parent/Gaurdian_____Phone_____Work_____

Diabetes Nurse Educator_____Office_____

Endocrinologist_____Phone_____Fax_____

Age of diagnosis _____Type _____Last A1C_____Next appointment_____

Pertinent history (hospitalization, DKA, glucagon use) _____

Transportation

Parent or bus_____

Address_____

Duration of bus ride am ____pm____

Training plan_____

Notes_____

After School

Activities_____

Training plan_____

Address_____

Who will resume care_____

Phone number_____

Field trip recommendations _____ parent attendance yes____ no ____

Communication Preferences

Contact for non-emergent consultation_____ relationship_____

Preferred method of communication call _____ text _____ email _____

Emergency contact #1_____ phone_____

Emergency contact #2 _____ phone_____

Notify parent that in an emergency when assistance is needed and emergency contacts are not reached, the healthcare provider will be contacted and if necessary 911 will be called.

Blood Glucose Monitoring

Assistance required yes __ no___

Performed in _____

Test times _____

CGM Model_____

Parameters High _____Low _____

Reporting to parent daily __ weekly__

call__ text ___email___

Insulin Delivery

Assistance required yes __ no___

Performed in _____

Form of delivery

Injection __ pen ____pump____

Pump Model_____

Oral medications_____

Diet

Snack time_____ lunch time_____ school or home lunch (circle one)

Assistance needed for dosing yes ____ no _____ Insulin dosing before, after, or split (circle one)

Snacks stored _____to be eaten _____

Special dietary needs_____

Direction related to class parties and treats _____

Physical Education

Scheduled time _____ blood glucose check: yes _____ no ____ before or after (circle one)

Snack requirements _____blood glucose parameters for snack _____

Student participation for after school sports _____

Training plan _____

EMERGENCY PLAN

lockdown, evacuation, shelter in place

Parent supplied kits including sugar source, complex carbohydrate, and water in potential student locations

Classrooms___ Art___ Music___ Band ___ PE ___ Library ___ Other___

Appendix D

Daily Glucose/Carbs/ Ketone Testing Log

Daily Blood Glucose Tests Student Name: Month:

	Time	Glucose	Carbs	Insulin	Time	Glucose	Carbs	Insulin	Time	Glucose	Carbs	Insulin	Notes
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
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Appendix E

Path to Successful Diabetes Self-Management [20,29]

Knowledge
- reading and interperting food labels
- managing portions
- eating out successfully

Understanding
- recognizing the impact of activity, illness and rest
- responding to how blood glucose levels feel
- monitoring trends, with successful insulin adjustment
- checking blood glucose, administering insulin

Numeracy
- calculating carbohydrates
- dosing insulin correctly
- making corrections as necessary

Sense of Self
- navigation of social situations
- risk reduction skills
- ability to ask for help

Age 3-5

- Trust in parents/caregivers for care
- Begins to help with supervised tasks
- Help check blood sugar: Clean finger, turns on meter and insert test strip
- Begins to identify high and low readings, and how it feels

Age 6-12

- Begins to recognize how it feels when blood glucose level is high, or low
- Can prick finger and test blood glucose levels
- Can begin to read and locate carbohydrate content of food/labels
- Beginning to calculate dose of insulin
- Can begin to help with administering insulin
- learning long and short term benefits of control
- Supervision, and collaboration

Age 13-14

- Increased insulin requirements with puberty
- Body change concerns
- Can perform the majority of daily tasks without assistance or supervision
- Collaborates with family/caregivers about management
- Begins to interact with care team with some independence
- Can start managing an insulin pump with supervision
- Parents/caregivers begin to overseerather than manage routine tasks

Age 15-18

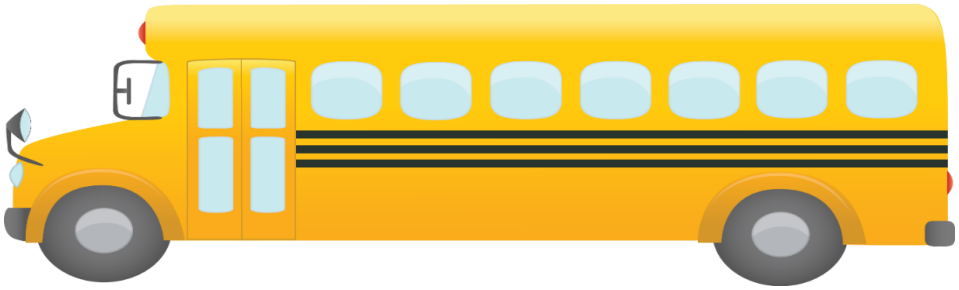
- Development of independence
- Diabetes is part of lifestyle
- Integrates physical selfcare with social and emotional care
- Understanding of long-term health outcomes
- Understands importance of communication and collaboration

intervene early → be flexibile → be consistent → trouble shoot in advance → use technology & community resources → build confidence

Appendix G

Emergency Diabetes Plan for the School Bus Driver

School Year ____



insert student picture if available

Name _____Date of Birth _____Grade _____Nurse _____

Parent/Gaurdian_____Phone_____Work_____

School_____Phone_____Transportation phone_____

Emergency contacts

Name_____ Relationship_____ Phone_____

Name_____ Relationship_____ Phone_____

In an emergency when assistance is needed and parent/guardian and emergency contacts are not reached, 911 will be called.

EMERGENCY PLAN

1. STOP the bus.
2. When in doubt, treat for low blood sugar with _____.
3. Contact transportation department or call the school and have them notify the parent.
4. If student is not responsive, unable to swallow or is having a seizure CALL 911.
    a. Administer glucagon if have been trained
    b. Turn student on side, glucagon can induce vomiting.
5. Report incident to school and parent.

Transportation

Bus_____ Driver _____

Address_____

Duration of bus ride am _____pm_____

Training plan_____

Notes_____

Low Blood Sugar: Hypoglycemia

Hungry, shaky, sweating, headache, pale, tired, dizzy, lightheaded, difficulty concentrating, appear agitated, irritable, emotional, fast heartbeat

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