

Virginia School Diabetes Management Protocols

Table of Contents

| | | |
|------|---|----|
| I. | Protocol Statement | 2 |
| II. | Responsibilities for Implementation | 3 |
| | A. Parent/Guardian Responsibilities | 3 |
| | B. Student Responsibilities | 4 |
| | C. Medical Provider Responsibilities | 5 |
| | D. School Nurse Responsibilities | 6 |
| | E. School Staff Responsibilities | 7 |
| III. | Hampton Roads Regional School Diabetes Medical Management Plan | |
| | A. Part 1. Parent/Guardian includes Parent Authorizations for Trained School Designees | 8 |
| | B. Part 2. Physician Orders and Authorizations | 8 |
| | C. Part 3. Plan Supplement for Student Wearing Insulin Pump | 8 |
| | D. Part 4. Permission to Self-Carry | 8 |
| IV. | Exercise Guidelines | 9 |
| V. | Field Trips | 11 |
| VI. | References | 12 |
| VII. | Appendices | 13 |
| | A. Target Blood Glucose Goals by Age (ADA) | 14 |
| | B. Accommodations to Consider | 15 |
| | C. Checklist for Parents/School Checklist | 16 |
| | D. Supply List for Insulin Pumps | 17 |
| | E. Continuous Glucose Sensors/Continuous Glucose Monitoring Systems. | 18 |
| | F. Quick Reference Emergency Plan for Hyper/Hypoglycemia | 19 |
| | G. Insulin Injection Training & Dose Calculation | 20 |
| | H. Hypoglycemia and Glucagon Injection Training | 21 |
| | I. Individualized Healthcare Plan | 22 |
| | J. Nurse's Standard File for Diabetic Students | 23 |
| | K. Diabetes Treatment Log | 24 |
| | L. Documentation of Communication Checklist | 25 |
| | M. Forms | 26 |
| | 1. Parent/Guardian includes Parent Authorizations for Trained School Designees | 27 |
| | 2. Physician Orders and Authorizations (DMMP) | 29 |
| | 3. Plan Supplement for Student Wearing Insulin Pump | 32 |
| | 4. Permission to Self-Carry | 34 |

I. Protocol Statement

The Virginia School Diabetes Management Protocol is a guide to be used to promote & ensure excellence, safety and support for children with diabetes in our schools. This protocol is a collaborative effort between parents/guardians, students, medical providers and school personnel.

This protocol was initially developed by the Health Services Supervisors/Coordinators of the following school districts:

Chesapeake
Hampton
Newport News
Portsmouth
Suffolk
Virginia Beach

Additional input and review provided by:
Isle of Wight
Norfolk
Poquoson
Williamsburg

Medical review has been provided by a multispecialty group of Pediatric Endocrinologists and Certified Diabetes Educators from:

Animas Corporation

Carilion Health System
Roanoke, VA

Children's Hospital of The King's Daughters
Norfolk, VA

Children's National Medical Center
Washington, DC

Eastern Virginia Medical School
Norfolk, VA

Inova Diabetes Center
Northern Virginia

Portsmouth Naval Hospital
Portsmouth, VA

University of Virginia
Charlottesville, VA

Virginia Commonwealth University Health System/Medical College of VA
Richmond, VA

Additional review has been provided by:

The American Diabetes Association (national office and local affiliates)
Virginia Department of Education
Virginia Department of Health

II. Responsibilities for Implementation

A. Parent/Guardian Responsibilities

1. Inform the school nurse/school administrator that your child has diabetes when the student enrolls in school or is newly diagnosed.
2. Provide accurate emergency contact information and update as necessary.
3. Provide the Diabetes Medical Management Plan (DMMP), signed by your child's medical provider and yourself to the school nurse. **This plan must be renewed prior to the beginning of each school year.**
4. Inform school nurse/school administrator of any changes in the student's health status and/or DMMP.
5. Provide all supplies and equipment necessary for implementing your child's DMMP. Replenish supplies as needed (within 48 hours of notification).
6. Inform the school nurse and other appropriate school staff when the student plans to participate in school-sponsored activities.
7. Authorize trained unlicensed school personnel to administer insulin and glucagon in the absence of a registered nurse.
8. Teach your child to:
 - a. Understand age-appropriate diabetic care (refer to Student Responsibilities).
 - b. Communicate clearly to adults in authority that he/she has diabetes and is not feeling well.
 - c. Inform you about his/her diabetes management during the school day.
 - d. Wear a medical alert ID at all times.
9. Review Checklist for Parents (Appendix A).

B. Student Responsibilities

1. Learn age-appropriate diabetic care
2. Know the following:
 - a. Who to contact and what to do when having a low or high blood sugar reaction
 - b. What the written school plans says to help manage your diabetes
 - c. When you should check blood glucose levels, give insulin, have a snack, and eat breakfast/ lunch
 - d. Where the diabetes supplies are stored, if you do not carry them, and who to contact when you need to use them
3. Take charge of your diabetes care at school as the DMMP allows. This **may** include:
 - a. Monitoring and recording blood glucose levels
 - b. Calculating accurate insulin doses
 - c. Self-administration of insulin/medications
 - d. Proper disposal of needles, lancets, and other supplies properly
 - e. Eating meals and snacks as prescribed
 - f. Treating hypoglycemia and hyperglycemia (low & high blood sugar)
 - g. Carrying and using diabetes equipment and supplies as directed
4. Cooperate with school and healthcare personnel who are assisting you with & supervising your diabetes care.

C. Medical Provider Responsibilities

1. Complete and sign a *Diabetes Medical Management Plan (DMMP)* for the student prior to the beginning of each school year or anytime an update is needed.
2. Authorize trained unlicensed school personnel to administer insulin and glucagon in the absence of a registered nurse.
3. Assess student's ability to self-carry, then complete and sign the *Self Carry Authorization Form*, if appropriate (Part 5 of the DMMP).
4. Respond to requests for assistance with medical management in a timely manner or assign appropriate staff from your practice to address school diabetes management as required.

D. School Nurse Responsibilities

1. Obtain and review the student's current DMMP from the medical provider and pertinent information from the family.
2. Conduct a nursing assessment of the student and develop an Individualized Health Plan (IHP) as indicated (Appendix B&I).
3. Participate in the development and implementation of the student's 504, Individualized Educational Program (IEP), or other education plan as indicated.
4. Conduct ongoing, periodic assessments of students with diabetes and update the nursing care plan.
5. Provide a Quick Reference Emergency Plan and other relevant diabetic information to staff members who have responsibility for the student throughout the school day (Appendix C&I).
6. Obtain materials and medical supplies necessary for diabetes care tasks from the parent/guardian and notify the student or parent/guardian when supplies need to be replenished (Appendix A&D).
7. Plan and implement diabetes training for the unlicensed assistive personnel (Appendix E).
8. Attend annual diabetes training.
9. Perform routine and emergency diabetes care tasks including documentation as necessary (Appendix F).
10. Promote and encourage independence and self-care consistent with the student's ability, skill, maturity, and developmental level.
11. Act as liaison between the school and student's health care provider/team regarding the student's diabetes management at school with parental permission. Resources at each health care provider may differ, but you would expect the following resources to be available:
 - a. Physicians, Nurse Practitioner and or Physician Assistant
 - b. Nurse
 - c. Dietitian
 - d. Certified Diabetes Educator
 - e. Social Worker
 - f. Education Consultant
12. Communicate to parent/guardian concerns about the student's diabetes management or health.
13. Respect the student's confidentiality and right to privacy.
14. Act as an advocate for students to help them meet their diabetes health care needs.
15. Maintain current knowledge about federal, state, and local laws and regulation that pertain to managing diabetes at school.
16. Review the Nurse's Standard File for Diabetic Students (Appendix ____).

E. School Staff Responsibilities

1. Meet with the parent/guardian, to gather information related to the child's diabetes.
2. Communicate with the school nurse regarding any concerns about the student.
3. Recognize that a change in the student's behavior could be a symptom of blood glucose changes; be prepared to respond to the signs and symptoms of hypoglycemia and hyperglycemia.
4. Send another person to the clinic with the child if displaying signs of high or low blood sugar; **Do Not Send Alone.**
5. If a student displays symptoms of hypoglycemia, it would be preferred to provide treatment in the classroom and then notify school nurse. **Adult accompaniment is required if symptoms are present and child must leave the classroom for treatment.** If possible, school nurse/clinic should be notified that student is coming to clinic.
6. Respect the student's confidentiality and right to privacy.
7. Provide a supportive environment for the student to manage diabetes effectively and safely at school, which may include:
 - a. Eating snacks for routine diabetes management
 - b. Having bathroom privileges and access to drinking water
 - c. Monitoring blood glucose
 - d. Administering insulin and other medications
8. Provide accommodations for the student with diabetes, as indicated in the student's IHP, 504 plan, IEP, or other education plan (Appendix H).
9. Learn about diabetes from your school nurse.
10. Notify the parents/guardians and school nurse **in advance** of changes in school schedule, such as class parties, field trips, and other special events.
11. Provide information for substitute teachers/nurses that communicates the needs of the student.

III. Virginia School Diabetes Medical Management Plan

A. Part 1. Parent/Guardian Information includes Parent Authorizations for Trained School Designees

This form is distributed by the school nurse/clinic and is to be completed by the parent or guardian. The information in this form provides helpful information for completing the Individualized Health Plan. This form is required by the State of Virginia Board of Education as required by law to determine parent/guardian permission or denial of permission for administration of insulin and/or glucagon by trained unlicensed personnel. This form does not require any involvement from the healthcare provider's office.

B. Part 2. Physician Orders and Authorizations

Children with diabetes receiving care at Children's Hospital of The King's Daughters, Portsmouth Naval Hospital and the Medical College of Virginia have agreed to use the forms included in this document. They may complete the forms electronically, in writing or a combination of both. Parents/guardians should request or obtain these completed forms from their physician and are required to sign these forms to authorize communication between the healthcare provider's office and the school. School forms will not automatically be sent to the school without the caregivers request. The forms should then be brought to the school by the child's caregiver. If another physician's office prefers to use his/her own *Diabetes Medical Management Plan* it must include all of the elements in this form (copies of these form may be shared electronically or by printing to any healthcare provider or family). Please note that physician authorization for treatment by trained school designees must be included in the Diabetes Medical Management Plan or a separate form must be provided. Healthcare providers are aware that children may be restricted from attending school if these forms are not provided to the school, but cannot be held responsible if the forms are not delivered to the school by the caregiver. Providers may make changes to these orders during the school year and are permitted to send only the applicable page requiring changes (the entire order set is not required and new caregiver signatures are not required with changes). New forms are required on an annual basis.

C. Part 3. Plan Supplement for Student Wearing Insulin Pump

If the child wears an insulin pump this supplemental form should be completed by the physician and caregiver. Portions of this form will be completed by the parent/guardian after the healthcare provider initiates the sections requiring orders. This form has been developed to help provide information regarding the child's proficiency in operating their insulin pump and to provide information on areas of operation where they will require assistance or supervision. Parents/caregivers are required to provide adequate instruction, manuals and supplies to support pump therapy use in the school.

D. Part 4. Permission to Self-Carry

If a child is going to carry and self administer insulin and perform blood sugar checks in the classroom; an "Authorization to Carry and Self-Administer Medication Form" must be completed by the physician, school nurse and the parent. As explained on the form, the school has the option to revoke this privilege if adherence to school rules or guidelines is not demonstrated by the student.

IV. Exercise Guidelines

Exercise and physical activity are beneficial for all children. Children who have diabetes especially benefit from exercise because physical activity can help to lower blood glucose levels. All children with diabetes can participate fully in physical education classes and team sports. In order to maintain blood glucose levels in target ranges, adjustments may need to be made to insulin and food intake. It is also important to check blood glucose levels more frequently while being active to prevent hypoglycemia.

Important Things to Know About Exercise and Diabetes

- *Do NOT exercise if you have moderate or large ketones.*
- Exercise may cause low blood sugars.
- The effects of exercise on blood sugar lowering can last for up to 24 hours as glycogen stores are depleted in the muscles.
- Exercise may cause high blood sugars due to adrenaline output.
- All kids should aim for at least 30 minutes of daily activity at least 5 days per week.
- Blood sugar should be checked before, during, and after activity as needed.

Suggestions for Safe Exercise in the Child with Diabetes

- Check blood sugar before exercise.
- Check ketones prior to exercise if blood sugar is >300 .
- Remember that everyone reacts differently to exercise. The only way to learn how your child reacts is to check blood sugars more frequently during activity.
- Eat a snack before exercise if needed. A good rule of thumb is 15 grams of carbohydrate for every 30 minutes of vigorous activity. Protein may be needed if the activity will be continued over a longer period of time.
- Always have extra snacks on hand.
- Carry a fast acting sugar to treat hypoglycemia.
- Be sure there is a current glucagon kit handy in case of emergency.
- Do not correct a high blood sugar immediately after exercise.
- Drink extra water or sugar-free fluids before exercising. A good rule of thumb is 8 oz for every 30 minutes of vigorous activity.
- Do not exercise alone.
- Wear a diabetes ID bracelet or necklace.
- Consider the injection site and type of activity. Insulin will be absorbed more quickly if given in a spot that will be used during the activity. For example, avoid the leg if child will be running or avoid the arm if child will be playing tennis. The stomach is usually a good site for pre-exercise injections.
- Think about peak action times of insulin and adjust insulin doses as needed to prevent hypoglycemia.





General guidelines for extra food to cover exercise

| Expected length of exercise | Blood sugar before exercise | Extra carbohydrate | Example of foods |
|--|-----------------------------|---|---|
| Short (15-30 minutes) Examples: walking, stretching | Less than 80 | 15-20 grams | 1 cup Gatorade <i>or</i> 1 cup milk <i>or</i> ½ cup juice |
| | 80-150 | 15 grams | Small piece fresh fruit |
| | Greater than 150 | None | None |
| Moderate (30-120 minutes) Examples: swimming, jogging, dancing, baseball | Less than 80 | 25-30 grams (include source of protein/fat) | 1 cup Gatorade <i>or</i> 1 cup milk <i>or</i> ½ cup juice plus ½ sandwich |
| | 80-150 | 25-30 grams (include source of protein/fat) | 1 cup Gatorade <i>or</i> 1 cup milk <i>or</i> ½ cup juice plus small piece of fruit |
| | Greater than 150 | 15 grams (include source of protein /fat) | ½ sandwich |
| Long (2 hours or more) Examples: football, basketball, soccer, hockey | Less than 80 | 30-40 grams initially, then 15 grams every hour (include source of protein/fat initially) | 4-8 oz Gatorade plus whole sandwich then 8 oz Gatorade <i>or</i> 4 oz juice every hour |
| | 80-150 | 20-30 grams initially, then 15 grams every hour (include source of protein/fat initially) | 4-8 oz Gatorade plus ½ sandwich then 8 oz Gatorade <i>or</i> 4 oz juice every hour |
| | Greater than 150 | 15-20 grams initially then 15 grams every hour (include source of protein/fat initially) | Whole sandwich then 8 oz Gatorade every hour |

Adapted from: Understanding Diabetes, 11th Edition

V. Field Trips

A student may not be excluded from field trips and other school-sponsored activities due to his/her diabetes. The same care provided at school should travel with them on field trips.

The written documents that need to be consulted when preparing a student with diabetes for a field trip are (not every student will have all of these):

- A. Diabetes Medical Management Plan (DMMP)
- B. Individualized Health Plan (IHP)
- C. Section 504 Plan
- D. Individualized Education Program (IEP)

It is important to make provisions for field trips in one of the above documents. This would ensure a smooth and safe transition from classroom to an off-site learning environment. The provisions should include who will assist the student on the field trip with his/her diabetes care. Well in advance, a field trip schedule should be provided to the parent and school nurse.

Supply checklist for field trip (What should school personnel bring as a minimum?):

- Copy of the DMMP
- Fast-acting carbohydrate
- Blood glucose testing equipment & supplies
- Insulin & insulin delivery system (pens & pen needles, syringes, etc)
- Ketone Strips
- Glucagon Kit
- Pump supplies, if applicable
- Extra batteries for meter, pump, etc., if applicable
- Additional supplies and insulin in case of delay in returning to school
- Cell phone to call for help if needed
- Emergency contact information

VI. REFERENCES/RECOMMENDED RESOURCES

Betschart, Jean: **It's Time to Learn About Diabetes**. A Workbook on Diabetes for Children. 1995.

Brennan, Clara and Mary Clark: **Computerized Classroom Health Care Plans for School Nurses**, Fourth Edition, 2007.

Chase, Peter: **A First Book for Understanding Diabetes**, Companion to the 11th Edition of "Understanding Diabetes". Children's Diabetes Foundation, 2007.*

Chase, Peter: **Understanding Diabetes**, 11th Edition. Children's Diabetes Foundation, 2006.*

Chase, Peter: **Understanding Insulin Pumps & Continuous Glucose Monitors**, First Edition, Children's Diabetes Foundation, 2007.*

Children's Diabetes Foundation at Denver: www.childrensdiabetesfdn.com

Children with Diabetes: www.childrenwithdiabetes.com

Diabetes Care Tasks at School: What Key Personnel Need to Know School Training Modules (American Diabetes Association Safe at School). PowerPoint Modules may be accessed by going to www.diabetes.org/schooltraining

For Schools, American Diabetes Association, www.diabetes.org/for-parents-and-kids/for-schools

Gosselin, Kim, **Taking Diabetes to School**: 1998.

Helping the Student with Diabetes Succeed: A Guide for School Personnel. A Joint program of the National Institutes of Health and the Centers for Disease Control and Prevention, the National Diabetes Education program, American Diabetes Association, June 2003. www.ndep.nih.gov

Hendel, Elisa: **A Child in Your Care Has Diabetes**: A collection of Information, 3rd Edition.

Manual for Training Public School Employees In the Administration of Insulin and Glucagon, September 1999, Virginia Department of Education, division of Instruction, Office of Special Education and Student Services.

Partners for Success: School Nurses and the Care of Children with Diabetes at School. School of Public Health, State University of New York at Albany. DVD available from the American Diabetes Association.

Successful Pumping in the School. Animas Corporation 2007-2008. May be accessed by going to www.animascorp.com/nursetraining.

*These references can be accessed online in view only format at: www.barbaradaviscenter.org (click on Online Books & Teaching Slides).

VII. Appendices

- A. Target Blood Glucose Goals by Age (ADA)**
- B. Accommodations to Consider**
- C. Checklist for Parents/School Checklist**
- D. Supply List for Insulin Pumps**
- E. Continuous Glucose Sensors/Continuous Glucose Monitoring Systems**
- F. Quick Reference Emergency Plan for Hyper/Hypoglycemia**
- G. Insulin Injection Training & Dose Calculations**
- H. Hypoglycemia and Glucagon Injection Training**
- I. Individualized Healthcare Plan**
- J. Nurse's Standard File for Diabetic Students**
- K. Diabetes Treatment Log**
- L. Documentation of Communication Checklist**
- M. Forms**
 - 1. Parent/Guardian includes Parent Authorizations for Trained School Designees**
 - 2. Physician Orders and Authorizations (DMMP)**
 - 3. Plan Supplement for Student Wearing Insulin Pump**
 - 4. Permission to Self-Carry**

A. Target Blood Glucose Goals by Age (ADA)

Table 15—Plasma blood glucose and A1C goals for type 1 diabetes by age-group

| Values by age (years) | Plasma blood glucose goal range (mg/dl) | | A1C | Rationale |
|--------------------------------------|---|-------------------|-------------------|---|
| | Before meals | Bedtime/overnight | | |
| Toddlers and preschoolers (0–6) | 100–180 | 110–200 | <8.5% (but >7.5%) | High risk and vulnerability to hypoglycemia |
| School age (6–12) | 90–180 | 100–180 | <8% | Risks of hypoglycemia and relatively low risk of complications prior to puberty |
| Adolescents and young adults (13–19) | 90–130 | 90–150 | <7.5% | <ul style="list-style-type: none"> • Risk of severe hypoglycemia • Developmental and psychological issues • A lower goal (<7.0%) is reasonable if it can be achieved without excessive hypoglycemia |

Key concepts in setting glycemic goals:

- Goals should be individualized and lower goals may be reasonable based on benefit-risk assessment.
- Blood glucose goals should be higher than those listed above in children with frequent hypoglycemia or hypoglycemia unawareness.
- Postprandial blood glucose values should be measured when there is a discrepancy between pre-prandial blood glucose values and A1C levels.

B. Accommodations to Consider

Accommodations Recommended For Students with Diabetes

- Will be able to keep a bottle of water with them at all times
- Will be able to have unlimited access to restrooms
- Will be able to eat a snack in the classroom
- Will be able to eat snacks and meals at the same time each day, if applicable. Should there be any change in this routine, the parent will be notified
- Will be allowed to leave the classroom for diabetes related issues
- Will be accompanied when leaving the classroom, as needed
- Will have access to all diabetes related supplies
- Will be supervised by a staff member when administering insulin to verify that the correct dosage has been given
- Will be totally independent and need no adult supervision for diabetes care, including insulin calculation and injection; the physician and parent will document and sign in the diabetes plan of care to include permission for self carry
- Will be monitored in elementary school by a staff member to determine amount of food eaten and that no food is shared with other children
- Will be able to participate fully in physical education classes and other activities as determined by the DMMP
- Will be able to test their blood glucose levels before all examinations and standardized tests
- Will not be penalized for time spent on diabetes care when taking an exam or completing a classroom assignment
- Will not be penalized for diabetes related absences

C. Checklist for Parents/School Checklist

DIABETES SCHOOL CHECKLIST

- Read “Parental Responsibilities”
- Read and discuss “Student with Diabetes Responsibilities” with student
- Have the student’s Doctor complete the “Diabetic Medical Management Plan”, Parts I, II, and if necessary Part III (Pump Management)
- Discuss specific care of your child with the teachers, school nurse, bus driver, coaches and other staff who will be involved.
- Complete the individualized school health plan with the help of the school staff and your diabetes care team.
- Make sure your child understands the details of who will help him/her with testing, shots and treatment of high or low blood sugars at school and where supplies will be kept. Supplies should be kept in a place where they are always available if needed.
- Make arrangements for the school to send home blood sugar records Weekly (or fax to MD office).
- Keep current phone numbers where you can be reached. Complete a medical release giving the school written permission to contact the child’s healthcare provider in the event of an emergency. Complete release for administration of glucagon by trained, unlicensed personnel.
- Collect equipment / supplies for school including the following:
 - Box with the child’s name to store these items (you may need one for meds and one for food).
 - Medical Identification
 - Meter
 - Strips
 - Lancets & Device
 - Insulin
 - Syringes or pens & pen needles
 - Alcohol wipes
 - Glucagon Kit with instructions
 - Ketone testing strips
 - Sharps container
 - Log sheets for blood sugars
 - Pump supplies
 - Batteries for meter &/or pump
 - Food/Drinks for treating Low Blood Sugar
 - 15 gm CHO Juice cans or boxes
 - Glucose tabs
 - Instant glucose or cake decorating gel
 - Fruit-Roll Ups
 - Dried Fruit, raisins or other snacks
 - Crackers (± peanut butter and/or cheese)
- Check regularly to make sure school has all necessary supplies (suggest monthly as a minimum).

D. Supply List for Insulin Pumps

Supply List for Insulin Pumps

- _____ Blood glucose monitoring device, test strips, lancets
- _____ Sharps Container
- _____ Extra meter battery
- _____ Extra pump battery
- _____ Insulin and syringes
- _____ Extra infusion sets, reservoirs/cartridges and insertion device (or extra Pods)
- _____ Alcohol pads
- _____ Dressing and tape (or other adhesive)
- _____ Glucose tablets/instant glucose
- _____ Glucagon emergency kit
- _____ Ketone test strips

E. Continuous Glucose Sensors

Continuous Glucose Monitoring (CGM) In The School:

A continuous glucose monitor reads glucose levels from a sensor in the interstitial fluid (under the skin/subcutaneous). It usually reads within 15-20% of a finger stick blood glucose value. The monitor can be programmed to alert (vibrate or alarm audibly) for predetermined high and low glucose levels. CGM is meant to provide additional glucose information and does not take the place of finger stick blood glucose values. It is not FDA approved for use in making diabetes treatment decisions.

Always make sure that hands are clean and check a blood glucose via finger stick before performing treatment.

Alert Settings

CGM will alarm if interstitial glucose is less than _____mg/dl or above _____.

If CGM alarms for low or high glucose levels, check finger stick blood sugar and treat according to the DMMP/Physician Orders.

Arrows

Some continuous monitors show arrows on the screen to indicate the speed at which the glucose levels are changing. Arrows on the face of the monitor may point straight down, indicating a rapidly falling glucose level. Treatment should then be as in A. 2. below. The arrows may also point straight up, which means a rapid increase in glucose level. Treatment should be as in C. Below. A horizontal or 45 degree arrow (or one arrow in contrast to two arrows) may mean that the glucose level is not changing as rapidly.

When to Use CGM Information

A. Lows or Pending Lows

1. CGM screen shows <70 mg/dl with or without arrow(s):

Check finger stick blood glucose and if low proceed with physician's care plan for treatment and food. Repeat blood glucose every 15 minutes until level is above 70 mg/dl.

2. CGM Screen shows <100 mg/dl with downward arrow(s):

Check finger stick blood glucose. If blood sugar is between 70 and 100 mg/dl give 5-10 grams of carbohydrate (to prevent blood sugar from going lower). If <70 mg/dl proceed with physician's care plan for treatment and food as above.

B. Glucose Levels in Target Range

1. CGM screen shows 80-200 mg/dl with or without arrow(s):

Check finger stick blood glucose as usual per DMMP or if symptomatic.

C. Highs or Pending Highs

1. CGM screen shows >200 mg/dl with upward arrow(s) or >250 mg/dl:

Check finger stick blood glucose and follow physician's DMMP for treatment of high glucose including instructions for checking ketones, calling physician or parents and providing correction insulin.

F. Quick Reference Emergency Plan for Hyper/Hypoglycemia

Double-click on the link below (or paste the link into your web browser) to display PDF of Hypoglycemia & Hyperglycemia Flow Charts for reference or printing (page 61-62).

http://www.ndep.nih.gov/diabetes/pubs/Youth_NDEPSchoolGuide.pdf

Appendix C

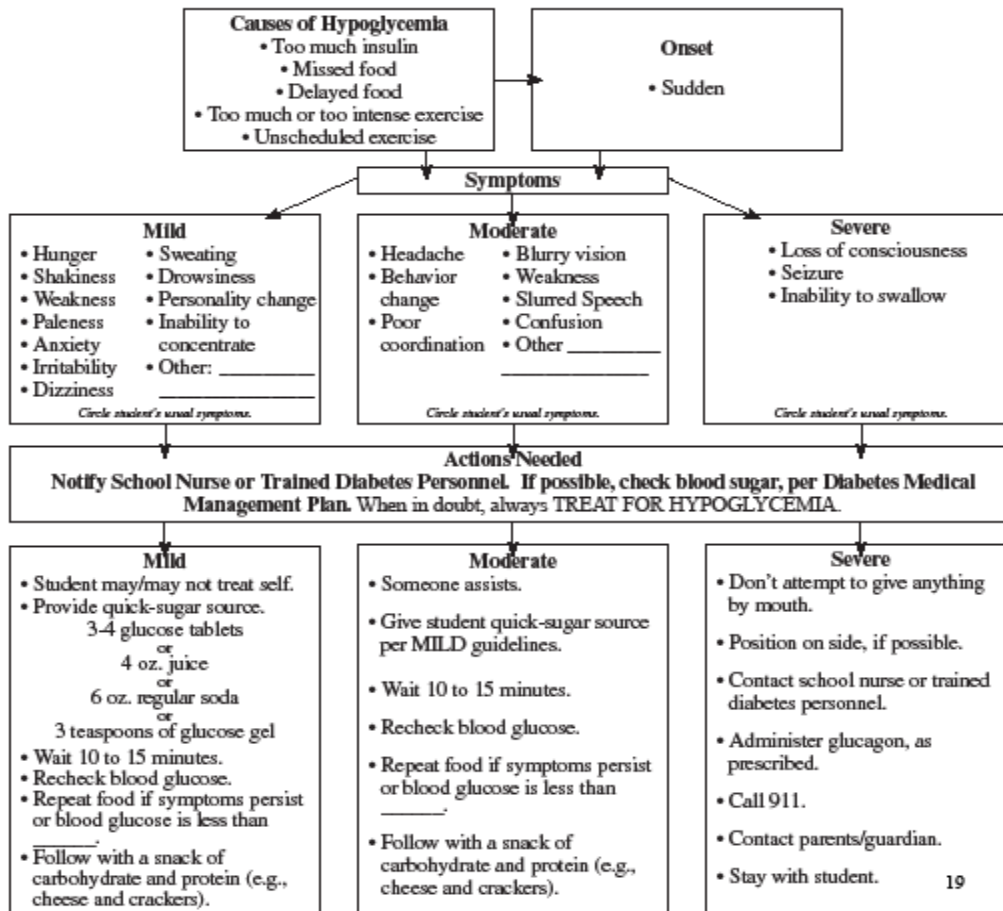
Quick Reference Emergency Plan for a Student with Diabetes

Hypoglycemia (Low Blood Sugar)

Photo

| | | | | | |
|---|------------|------|-------------------|------------|------|
| Student's Name | | | | | |
| Grade/Teacher | | | Date of Plan | | |
| Emergency Contact Information: | | | | | |
| Mother/Guardian | | | Father/Guardian | | |
| Home phone | Work phone | Cell | Home phone | Work phone | Cell |
| School Nurse/Trained Diabetes Personnel | | | Contact Number(s) | | |

Never send a child with suspected low blood sugar anywhere alone.



G. Insulin Injection Training & Dose Calculations

Hampton Roads Regional School Diabetes Management Protocol

Insulin Injection Training & Dose Calculations

Employee Receiving Training: _____

School: _____

Trainer/Evaluator: _____

| PERFORMANCE CRITERIA | DATE: | INITIALS OF EVALUATOR |
|--|-------|-----------------------|
| 1. Describes situations that insulin is necessary. States storage and security of insulin and syringes and medical supplies. | | |
| 2. Locates student's care plan and determines correct insulin dose and time insulin is to be administered. Demonstrates ability to accurately perform insulin dose calculations. | | |
| 3. States 5 "Rights" of medication administration. | | |
| 4. Accurately measures insulin dose using a syringe and an insulin pen. Practice of 2 units, 5.5 units, 7 units. | | |
| 5. Locates injection site to be used. | | |
| 6. Demonstrates accurate injection technique. | | |
| 7. States precautions to take after insulin is administered. | | |
| 8. Discuss proper disposal of medical supplies. | | |

Trainer/Evaluator (signature): _____ Date: _____

Employee (signature): _____ Date: _____

H. Hypoglycemia & Glucagon Training

**Hampton Roads Regional School Diabetes
Management Protocol**

Hypoglycemia & Glucagon Training

Employee Receiving Training: _____

School: _____

Trainer/Evaluator: _____

| PERFORMANCE CRITERIA | DATE: | INITIALS OF EVALUATOR |
|---|--------------|------------------------------|
| 1. Describes symptoms of hypoglycemia. | | |
| 2. Discuss appropriate treatment for mild, moderate, and severe hypoglycemia. | | |
| 3. States situations when glucagon emergency kit should be used. | | |
| 4. Accurately mixes and withdraws glucagon from vial. States where to find correct glucagon dose for student (0.05 & 1.0 mg). | | |
| 5. Locates injection site to be used. | | |
| 6. Demonstrates accurate injection technique. | | |
| 7. Lists precautions to take when using glucagon: Turn on side. Check MD order for dose. Activate 911 and call school nurse and parents. | | |
| 8. Discuss that glucagon injection may be repeated if patient fails to respond while waiting for emergency assistance. Intravenous glucose MUST be administered if the patient fails to respond to glucagon. | | |
| 9. Discuss that when child is able to swallow, food or fluids should be given to prevent recurrent hypoglycemia. | | |

**REMEMBER: THERE IS NO DANGER OF OVERDOSE
GLUCAGON CAN BE GIVEN THROUGH CLOTHING.**

Trainer/Evaluator (signature): _____ Date: _____

Employee (signature): _____ Date: _____

I. Individualized Healthcare Plan

INDIVIDUALIZED HEALTH CARE PLAN

Below are suggested resources that can be used to develop an Individualized Health Care Plan (IHP). It is best practice to develop an IHP that includes specifics of care and addresses particulars that are not included in the DMMP, such as field trip accommodations, training of staff in diabetes, specific times to test blood sugars, etc. It is a plan that should be provided to teachers and other staff members that are directly involved with the diabetic student.

- Arnold, Martha and Cynthia Silkworth: **The School Nurse's Source Book of Individualized Healthcare Plans**, Volume I & II, 1999.
- Brennan, Clara and Mary Clark: **Computerized Classroom Health Care Plans for School Nurses**, Fourth Edition, 2007.

J. Nurse's Standard File for Diabetic Students

Nurse's Standard File for Diabetic Students

___ Current Diabetes Medical Management Plan

___ Current IHP, 504 and/or IEP

___ Permission to Self Carry, if applicable

___ Quick Reference Emergency Plan

___ Emergency Contact Information

___ Copy of Student's Schedule

___ Diabetes Treatment Log, if indicated

Other items to have on hand in the clinic:

- Quick reference chart on hyper/hypo-glycemia (to share with teachers, etc.)
- CHO Counting Reference Book
- Information on CHO counts in cafeteria foods from Food Services
- Copy of menu for the month
- Pump Reference/Manual if applicable