

Standards of Care for Diabetes Management in the School Setting

These are general standards of care for students with Type 1 Diabetes, which are integrated and to be used with the student's diabetes management plan/orders by the student's medical provider. The student's diabetes medical provider may individualize and indicate exceptions to these standards on the student's diabetes management plan/orders.

Introduction: This document is meant to work in conjunction with the student's Diabetes Management Plan (DMP) and orders to keep the student healthy and safe at school.

Communication:

To facilitate appropriate execution of the Diabetes Health Care Provider's orders/DMMP and to ensure safety of the child, the School Nurse will have authorization to exchange health information with the health care provider to assist in developing, updating and carrying out the Diabetes Management Plan. Authorization for this coordination of care is per parent signed diabetes health care provider orders/DMP and IHP.

- School Nurses and trained school staff will communicate with parents/students via phone calls, in person meetings or written communication.
- School Nurses do not have work cell phones and are unable to communicate via text. Thus, Continuous Glucose Monitoring is not permitted by the school nurse or school staff.
- School Nurses are not able to communicate any personal health information via email.

Diabetes Supplies:

Parents should provide all necessary supplies needed to test blood sugar and to treat high or low blood sugars on the first day student is on school campus. This includes blood sugar monitor, test strips and lancets, insulin pump supplies such as infusion sets, reservoirs, batteries and back up insulin with syringes/insulin pen, ketostix, snacks, juice and a water bottle (refillable or disposable). All necessary supplies will be sent with trained school staff for field trips.

Diabetes Health Care Provider Orders/DMP:

- The DMP/orders include daily and emergency care for students with diabetes.
- At the start of each school year or upon enrollment, all students with diabetes, including those who are independent, must have a current DMP/orders on file at school. If indicated on the DMP/Order, the parent may have permission to make adjustments to diabetes care and/or treatment temporarily or situational. If ongoing changes to the DMP/Orders are needed during the school year, new orders must be obtained
- Elementary Students- Form B should be completed after DMP/Orders have been completed to ensure that they match.
- Additional school or district specific medication forms are unnecessary unless they contain additional information not specified for this child's diabetes care or are needed for the care of another chronic condition.
- Students with diabetes are eligible for a 504 plan. Please contact your school nurse or school's 504 coordinator for additional information if additional accommodations, other than DMP/orders, are needed.

Monitoring Blood Glucose:

- The frequency of routine blood glucose monitoring should take into consideration the child's schedule and participation in classroom learning/activities. Too frequent routine glucose monitoring may impact learning and school participation. On average, a child would have routine glucose monitoring one to three times during the school day unless otherwise indicated on DMP/orders.
- The parent can request blood glucose monitoring be done at any time, regardless of DMP /Orders.

Hypoglycemia:

- Child should be treated immediately and onsite (i.e. classroom, playground) if symptomatic or if blood glucose is below 70-80 as indicated on DMP/Orders. If the child needs to go to the Health Office – the student should be accompanied by an adult.
- Rule of 15 is the usual treatment for low blood sugar. Treat student with 15 grams of a simple sugar and retest in 15 minutes. If blood sugar is < 50, 30 grams of a simple sugar may be given. Repeat until blood sugar is above 70-80 according to DMP/Orders. Then follow with a protein (snack or lunch). Blood sugar must be above 70-80 before sending to lunch.
- Do not give insulin for carbohydrates (do not enter in pump) given to treat low blood glucose.
- For all children (no pump or pump), the school nurse should encourage the parent to contact the health care provider for insulin dose adjustments if hypoglycemia occurs frequently (when there are 3-4 days with 2 or more blood glucose readings below 70-80 at the same time of day).
- Notify Parents after child has been treated for hypoglycemia to avoid delaying treatment.
- Notification to Parents*: Low < 80 (unless otherwise indicated on Provider DMP/orders) A child with hypoglycemia should be treated first prior to notifying parents
- **Glucagon will be administered as ordered on DMP/Orders for a student whose blood sugar is so low that they are unconscious, having a seizure or unable/unwilling to take a simple sugar. In the event glucagon is given, EMS will be called and parent notified.**
- **If student with pump has severe hypoglycemia requiring glucagon, pump may be suspended or turned off by school nurse or trained staff.**
- In the event that a parent does not supply glucagon for school, the student may be treated with glucose gel.

Hyperglycemia:

- For all children (no pump or pump), the school nurse should encourage the parent to contact the health care provider for insulin dose adjustments if hyperglycemia occurs frequently (when there are 5-6 days with 3 or more blood glucose readings 300 at same time of day).
 - Always use correction scale at all meals.
 - If blood sugar >300 outside of meal time, use correction scale (no more than every 2 hours for injections) or enter blood sugar into insulin pump.
 - If BS above target range but <300 outside of mealtime, do not use correction scale but do enter blood sugar into insulin pump if applicable.
 - If blood sugar >300 or whenever a student symptoms of illness, nausea, vomiting, and/or stomachache, check urine for ketones. If the school is unable to test for ketones, and the student has any of these symptoms, they should be picked up by a parent to be treated/monitored at home as they may have diabetic ketoacidosis (DKA). If unable to reach the parent and symptoms of nausea, vomiting and/or stomachache persist then call 911.
 - Potential pump malfunction: Blood sugar greater than 300 mg/dl with ketones or 2 consecutive unexplained blood sugars greater than 300 mg/dl (with or without ketones), may indicate a malfunction in the pump. Student may require insulin via injection and/or new infusion site. The concern for a student on a pump w/ hyperglycemia is a malfunctioning pump/infusion site failure & the risk of quickly going into DKA. Thus insulin by injection (use correction scale on DMP/Orders) may be required or insertion of a new infusion set by parent or independent student.
 - Parent will be notified if blood sugar above 300 or as indicated on DMP/Orders.
 - Blood sugar will be rechecked in 1-2 hours if injection and 1 hour in pump. In addition, ketones should be rechecked until negative and blood sugar is <300.
 - Student should not exercise if blood sugar > 300 or as indicated on DMP/Orders.
- Note: always check blood glucose and/or ketones before exercise if the child is not feeling well.

Insulin Management:

- Fast-acting insulins are interchangeable (Humalog, Novolog, Apidra) unless child is allergic to a certain brand or otherwise indicated on provider DMP/orders.
- In the school setting, fast-acting insulin is generally given approximately 5-15 minutes prior to lunchtime, unless otherwise indicated on provider DMP/orders. Since it is difficult to determine precisely when the child will actually eat their meal at school due to varying factors, fast-acting insulin is not given earlier than 10-15 minutes to avoid an episode of hypoglycemia.
- After 28 days (unless otherwise indicated on packaging insert by manufacturer), opened vials/cartridges/pens of insulin will begin to lose their potency and be susceptible to bacteria contamination; therefore the insulin should no longer be used in the school/child care setting. Parents will be notified and given the choice to pick up or have it discarded by school nurse.
- School nurse should notify parent of insulin and glucagon expiration dates in advance so parents can bring in new medication.
- Please check with parents to see if they would like the expired insulin to be picked up by them or discarded.
- Long-acting insulin may be given during school / when indicated by the provider (e.g. adherence to insulin regimen is not occurring at home).

Pump Management:

- The computerized features/calculator of pump should be used for insulin boluses (carbohydrates and correction scale).
- The school nurse does not adjust/change any pump settings. All Pump settings are done by parent and provider.
- If pump malfunctions, notify parent. Pump may be turned off by school nurse or trained staff if needed.
- All blood glucose values and carbohydrate grams (with the exception of treatment for hypoglycemia) must be entered into the pump for delivery of pump-recommended boluses.
- Parents/guardians are responsible for ensuring all pump settings align with DMP/orders.
- Please note that the correction scale on DMP/Orders for pump is for back up insulin and may not match pump correction scale. However, the carb to insulin ration should be the same.
- The pump bolus calculator rarely should be overridden (e.g. in dosing changes). Encourage parents to follow-up with their health care provider for insulin pump dose adjustments if frequent overrides are being requested. Parent or Provider permission are required to override the pump dosage.
- If pump site needs to be changed, a parent or independent student can change the site. It is important to have a change set available at school for this purpose. However, the school nurses is unable to change the pump site.

Continuous Glucose Monitors (CGM):

- CGM systems use a tiny sensor inserted under the skin to monitor glucose levels (ongoing or short term) in interstitial fluid. Some CGMs need to be calibrated using a finger stick glucose reading when readings are stable, approximately two- three times/day, typically outside of school. Parents/independent children are responsible for changing sensor/site. It is important to have a change set available at school for this purpose. The school nurses is unable to change the CGM sensor site. Calibration may need to occur in school if prompted by CGM and should ideally occur when the blood glucose levels are stable (not rising or falling rapidly) typically before meals, and not after meals.
- In the school setting, the low and high BG alarms should be addressed rather than the constantly fluctuating trends and numbers.
- The FDA has approved some non-adjunctive use of certain CGMs to make treatment decisions without needing to validate with finger-stick blood glucose (BG) values. If applicable, this should be indicated on the DMP/Orders.
- The benefits of a CGM in the school/child care setting includes-real-time, dynamic glucose information, which enhances the safety of the child and their diabetes control. The school nurse/child care health consultant should support the use of CGMS and establish parameters so that there is little disruption to

the student's school activities, thereby, enhancing their education. The use of the CGM in the school setting includes using alarms sparingly and setting alarms for blood glucose levels that require an immediate action/response. This will help the child avoid alarm fatigue, and enhance learning by avoiding unnecessary disruption to their learning in the classroom. Alarms should be set for low BG and high BG when treatment/action is needed.

- School staff are unable to handle unique requests for frequent glucose pattern management techniques at school (e.g. sugar surfing). Diabetes care at school will be provided in accordance with the regimen prescribed in the student's DMP/Orders.
- Remote monitoring of the CGM in the school is not required as the child is usually adult-supervised by school nurse or trained school staff and alarms are used to identify urgent blood glucose levels requiring action. However, the parent can monitor remotely and communicate via phone with school nurse or trained school staff if needed. The school nurse and school staff are not permitted to follow student's CGMs on their personal devices.
- Parents are responsible for setting the alarms and notifying the school nurse of the parameters. Alarms should be used sparingly and for safety to avoid unnecessary disruption of school activities/education. Recommend: set alarms for blood glucose levels that require an immediate action/response.
- Trend Arrows: The health care provider may indicate on the DMP the use of trend arrows at mealtime in determining insulin dosing/treatment.

Emerging Diabetes Technology in the school setting: Technology in diabetes care and treatment is constantly evolving. It is important for the parent and student to meet with the school nurse to review any diabetes technology they are using.

Diabetes management training for school personnel is essential to ensure effective school-based diabetes management. There are three levels of staff training.

Level 1. All school personnel receive training that provides a basic understanding of diabetes, how to recognize and respond to the signs and symptoms of low blood glucose (hypoglycemia) and high blood glucose (hyperglycemia), and whom to contact immediately in case of an emergency.

Level 2. Classroom teachers and all school personnel who have responsibility for students with diabetes throughout the school day receive Level 1 training plus additional training to carry out their individual roles and responsibilities and to know what to do in case of a diabetes emergency.

Level 3. At least 2 staff members receive in-depth training about diabetes and routine and emergency care for each student with diabetes from the school nurse. This training will help ensure that a school staff member is always available to help all students with diabetes in case of an emergency and to help younger or less experienced students or those with additional physical or mental impairments perform diabetes care tasks (e.g., administering insulin, checking blood glucose levels). Trained school staff will accompany student with diabetes on all field trips. If student is independent, school staff attending field trip with student will be trained to administer glucagon as ordered on DMP/orders.

Self-Care Management: Ability level to be determined by the parent and provider with consultation from the school nurse and specified on the DMP/Orders. All students regardless of age or expertise require a DMP/Orders and may need assistance with hypoglycemia and illness.

Non-adherence to diabetes care: For students not adhering to treatment (not checking BG, not taking insulin, not checking ketones), the school nurse, parent and providers should communicate concerns and collaborate on problem solving interventions as possible.

Emergency Preparedness: Schools should develop an emergency plan for students with diabetes and practice the emergency plan during the school drills. The parents/guardians should provide an emergency supply kit in the event of natural disasters, lockdowns, or emergencies when students need to stay at school. This kit should contain enough supplies for at least 72 hours to carry out the DMP/orders.

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