Maryland Diabetes Medical Management Plan / Health Care Provider Order Form

Valid from: Start___/___/___to End___/___/___ or for School Year _____

Demographics

Student Name:	**D.O.B.:**	**Grade:**	**Diagnosis:**
Parent/Guardian:	**Home Phone:**	**Work Phone:**	**Cell Phone:**

Insulin Orders

Insulin Dosing:

☐ Carbohydrate (CHO) coverage ☐ Correction dose only ☐ Correction dose plus CHO coverage ☐ Fixed dose
☐ Fixed dose with correction scale ☐ See attached dosing scale

Insulin(s):

☐ **Rapid Acting:** ☐ Apidra ☐ Humalog ☐ Novolog ☐ Admelog ☐ Other (specify):_____
☐ Any of the **Rapid Acting** insulins may be substituted for the others

☐ **Long Acting** (if given at school):_____ Give_____unit(s) of insulin Sub-Q at_____(time)

Insulin Delivery: ☐ Pen ☐ Syringe ☐ Pump (make/model):

Carbohydrate (CHO) Coverage per Meal: ☐_____unit(s) of insulin Sub-Q per_____grams of CHO at breakfast
☐_____unit(s) of insulin Sub-Q per_____grams of CHO at lunch ☐_____unit(s) of insulin Sub-Q per_____grams of CHO at dinner

Carbohydrate Dose Adjustment Prior To Strenuous Exercise Within _____Minutes:

☐ Use exercise/PE CHO ratio of_____unit(s) of insulin per_____grams of CHO at breakfast
☐ Use exercise/PE CHO ratio of_____unit(s) of insulin per_____grams of CHO at lunch
☐ Use exercise/PE CHO ratio of_____unit(s) of insulin per_____grams of CHO at dinner

Correction Dose: ☐ Give _____ unit(s) of insulin Sub-Q for every_____mg/dl greater than BG of _____ mg/dl
☐ If pre-breakfast BG less than_____mg/dl, subtract_____unit(s) of insulin dose
☐ If pre-lunch BG less than_____mg/dl, subtract_____unit(s) of insulin dose
☐ If pre-dinner BG less than_____mg/dl, subtract_____unit(s) of insulin dose

☐ **Fixed Dose Insulin:** ____unit(s) of insulin Sub-Q given before school meals

☐ **Split Insulin Dose**:
Give_____unit(s) or_____% of meal insulin dose Sub-Q before meal and_____unit(s) or_____% of meal insulin dose Sub-Q after meal

Snack Insulin Coverage: ☐ No snack coverage ☐ Snack coverage if BG > _____mg/dl
☐_____unit(s) of insulin Sub-Q per_____ grams of CHO

Insulin Dose Administration Principles*

*See page 2 for Hyperglycemia management

Insulin should be given:

☐ Before meals ☐ Before snacks ☐ Other times (please specify):
☐ For correction if BG >_____mg/dl and _____hours since last dose/bolus
☐ If CHO intake cannot be predetermined, insulin should be given no more than_____minutes after start of meal/snack
☐ If parent/guardian requests, insulin should be given no more than_____minutes after start of meal/snack

☐ Use pump or bolus device calculations per programmed settings, once settings have been verified
☐ Parent/Guardian has permission to increase/decrease insulin correction dose by +/- one (1) unit to three (3) units of insulin or adjust the CHO ratio by +/- 20 grams of CHO per one (1) unit of insulin

Independent Insulin Administration Skills* & Supervision Needs

*Skills to be verified by school nurse

☐ Insulin dose calculations ☐ Independent ☐ With Supervision	☐ Carbohydrate counting ☐ Independent ☐ With Supervision	☐ Measuring insulin ☐ Independent ☐ With Supervision	☐ Insulin administration ☐ Independent ☐ With Supervision

Other Diabetes Medication

Name of Medication	Time	Dosage	Route	Possible Side Effects

Authorizations

HEALTH CARE PROVIDER AUTHORIZATION		PARENT/GUARDIAN AUTHORIZATION	
I authorize the administration of the medications and student diabetes self-management as ordered above.		**By signing below, I authorize:** • The designated school personnel to administer the medication and treatment orders as prescribed above. **By signing below, I agree to:** • Provide the necessary diabetes management supplies and equipment; and • Notify the nurse of any changes in my child's care or condition.	
Provider Name (PRINT):			
Phone:	**Fax:**		
Provider Signature:	**Date:**	**Parent/Guardian Signature:**	**Date:**
Acknowledged and Received by:		**School Nurse:**	**Date:**

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Student Name:	**D.O.B.:**

Blood Glucose Monitoring* *Self-management skills to be verified by school nurse

Blood Glucose (BG) Monitoring:

☐ Before meals ☐ Before PE/Activity ☐ After PE/Activity
☐ Prior to dismissal ☐ Additional monitoring per parent/guardian request
☐ For symptoms of hypo/hyperglycemia and any time the student does not feel well
☐ **Student may independently check BG***

Continuous Glucose Monitoring

☐ Uses CGM Make/Model: Is this CGM make/model approved by the FDA for insulin dosing? ☐Yes ☐No
Alarms set for: Low _____ mg/dl High _____ mg/dl ☐If sensor falls out at school, notify parent/guardian

Hypoglycemia Management* *Self-management skills to be verified by school nurse

Mild or Moderate Hypoglycemia (BG below _____ mg/dl)

☐**Provide quick-acting glucose product equal to 15 grams of carbohydrate (or glucose gel), if conscious & able to swallow**
☐Suspend pump for BG <_____mg/dl and restart pump when BG >_____mg/dl
☐Student should consume a meal or snack within_____minutes after treating hypoglycemia
☐Other:_____

Always treat hypoglycemia before the administration of meal/snack insulin
Repeat BG check 15 minutes after use of quick-acting glucose

- If BG still low, re-treat with 15 grams quick-acting CHO as stated above
- If BG in acceptable range and it is lunch or snack time, have student eat and cover meal CHO per orders
- If CGM in use and BG ≥70 mg/dL and arrow going up, no need to recheck

Student may self-manage mild or moderate hypoglycemia and notify the school nurse*: ☐Yes ☐No

Severe Hypoglycemia (includes any of the following symptoms):

- Unconsciousness
- Semi-consciousness
- Inability to control airway
- Inability to swallow
- Seizing
- Worsening of symptoms despite treatment/retreatment as above

☐**GLUCAGON** injection: ☐1 mg ☐ 0.5 mg IM or Sub-Q

- Place student in the recovery position
- Suspend pump, if applicable, and restart pump at BG >_____mg/dl
- Call 911 and state glucagon was given for hypoglycemia; notify parent/guardian

☐**If glucagon is not available or there is no response to glucagon, administer glucose gel inside cheek, even if unconscious or seizing. If glucose gel is administered, place student in recovery position.**

Hyperglycemia Management* *Self-management skills to be verified by school nurse

If BG greater than_____mg/dl, or when child complains of nausea, vomiting, and/or abdominal pain, check urine/blood for ketones

If urine ketones are **trace to small** or blood ketones less than_____ mmol/L:

- Give_____ounces of sugar-free fluid or water per hour as tolerated
- Give insulin as listed in insulin orders **no more than every_____hour(s)**

If urine ketones are **moderate to large** or blood ketones greater than _____ mmol/L:

- Give_____ounces of sugar-free fluid or water per hour as tolerated
- If student uses pump, disconnect pump
- Give insulin as listed in insulin orders **no more than every_____hour(s) by injection**

If large ketones and vomiting or large ketones and other signs of ketoacidosis, call 911. Notify parent/guardian.
Re-check BG and ketones _____ hours after administering insulin
Contact parent/guardian for: ☐BG >_____mg/dl ☐Ketones >_____mmol/L

Student may self-manage hyperglycemia with trace/small ketones and notify the school nurse:* ☐Yes ☐No

Ketone Coverage

For ketones trace to small (urine)/<_____mmol/L (blood):	**For ketones moderate to large (urine)/>_____mmol/L (blood):**
☐Correction dose plus _____ unit(s) of insulin	☐Correction dose plus _____ unit(s) of insulin
☐_____unit(s) of insulin	☐_____unit(s) of insulin

Parent/Guardian Name:	**Signature:**	**Date:**
Provider Name:	**Signature:**	**Date:**
Acknowledged and Received by:	**School Nurse:**	**Date:**

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Physical Education, Physical Activity, and Sports* *Self-management skills to be verified by school nurse

☐ Avoid physical education/physical activity/sports if:
- ☐ BG <_____mg/dl ☐ BG >_____mg/dl
- ☐ Trace/small ketones present ☐ Moderate/large ketones present

☐ If BG is ≤ _____mg/dl, give 15 grams of CHO and return to physical education/physical activity/sports
☐ May disconnect pump for physical education/physical activity/ sports
☐ Student may set temporary basal rate for physical education/physical activity/sports*
☐ Other:

Transportation* *Self-management skills to be verified by school nurse

☐ Check BG prior to dismissal
- ☐ If BG is not >_____mg/dl, give_____grams carbohydrate snack
- ☐ BG must be >_____mg/dl for bus ride/walk home

☐ Only check BG if symptomatic prior to bus ride/walk home
☐ Allow student to carry quick-acting glucose for consumption on bus, as needed for hypoglycemia*
☐ Student must be transported home with parent/guardian if (specify):_____
☐ Other:

Disaster Plan (if needed for lockdown, 72-hour shelter in place)

☐ Continue to follow orders contained in this medical management plan
☐ Additional insulin orders as follows: unit(s)/hour
☐ Other:

Pump Management

Type of Pump:	Pump start date:	Child Lock: ☐ On ☐ Off

Basal rates:

_____unit(s)/hour _____AM/PM _____unit(s)/hour _____AM/PM
_____unit(s)/hour _____AM/PM _____unit(s)/hour _____AM/PM
_____unit(s)/hour _____AM/PM _____unit(s)/hour _____AM/PM

Additional Hyperglycemia Management:
☐ If BG >_____mg/dl and has not decreased over_____hours after bolus, consider infusion site change. Notify parent/guardian
☐ For infusion site failure: ☐ Give insulin via syringe or pen ☐ Change infusion site
☐ For suspected pump failure, suspend or remove pump and give insulin via syringe or pen
☐ If BG >_____mg/dl and moderate to large ketones, student should change infusion site and give correction dose by pen or syringe
☐ Comments:

Independent Pump Management Skills and Supervision Needs*
*Skills to be verified by school nurse. Supervision will be provided if not fully independent when appropriate

Student is independent in the pump skills indicated below:

☐ Carbohydrate counting	☐ Bolus an insulin dose	☐ Set a basal rate/temporary basal rate
☐ Reconnect pump at infusion set	☐ Prepare and insert infusion set	☐ Troubleshoot alarms and malfunctions
☐ Give self-injection if needed	☐ Disconnect pump	☐ Other:

Additional Orders

☐ Please FAX copies of BG/insulin diabetes management records every_____weeks (FAX number:)
☐ Other orders: *Use page 4 of form if additional space is needed*

Parent/Guardian Consent for Self-Management

- I acknowledge that my child ☐ **is** ☐ **is not** authorized to self-manage as indicated by my child's health care provider
- I understand the school nurse will work with my child to learn self-management skills if he/she is not currently capable of or authorized to perform independently

My child has my permission to independently perform the diabetes tasks listed below as indicated by my child's health care provider:

☐ Blood glucose monitoring	☐ Insulin administration	☐ Pump management
☐ Carbohydrate counting	☐ Insulin dose calculation	☐ Other:

Parent/Guardian Name:	**Signature:**	**Date:**
Provider Name:	**Signature:**	**Date:**
Acknowledged and Received by:	**School Nurse:**	**Date:**

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Additional Orders Addendum

Parent/Guardian Name:	**Signature:**	**Date:**
Provider Name:	**Signature:**	**Date:**
Acknowledged and received by:	**School Nurse:**	**Date:**

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Guidance Document

Form Section	Guidance
Insulin Dosing	
Carbohydrate coverage	Calculated to cover carbohydrate intake at meals or snacks. Grams of carbohydrate in meal = _____ units of insulin Insulin to Carb Ratio
Correction dose	Calculated to correct a high blood glucose level to a desired goal. Sample formula: Blood glucose-Target blood glucose = _____ of units for correction Sensitivity Factor
Fixed dose	Set insulin dose at meals.
Fixed dose with sliding scale	Set insulin dose which is adjusted based on blood glucose levels.
Insulin Delivery Insulin Pumps	It is always helpful to have quick access to the instruction manual or the quick reference guide for each pump. All pump manufacturers have websites with instruction manuals and online trainings.
Insulin Dose Administration Principles	Insulin dose calculation: round up or down to the nearest half or whole unit. May use clinical discretion: if physical activity follows, round down. Insulin should be given before a meal. If the CHO intake cannot be determined before the meal, consult with the parents and provider to develop a plan that would work best for the student.
Target Blood Glucose Range	Suggested ranges per the American Diabetes Association for all pediatric patients with Type 1. • Before meals: 90-130 mg/dl • Bedtime/overnight: 90-150 mg/dl
Continuous Glucose Monitoring	Monitors glucose level from the interstitial tissue. Provides valuable information on trends in glucose levels, pre- and post-meal glucose levels and glucose changes during exercise. System involves a sensor, transmitter and a receiver. Interstitial reading lags behind blood glucose readings by 5 minutes. Medtronic and Dexcom are the primary CGM manufacturers and each has helpful websites.

Guidance Document (continued)

Form Section	Guidance
Hypoglycemia	Examples of quick acting glucose sources (equal to approximately 15 grams CHO) include: • 4 ounces of fruit juice • 4-6 ounces of regular soda • 3-4 glucose tablets • 2-3 rolls of smarties 10 sweet tarts • 15 regular jelly beans • 3 teaspoons of cake decorating gel (fat free) • 1 Tablespoon of table sugar • 4-5 packets of table sugar Some students, especially younger students on insulin pumps, may need less amounts of quick acting glucose to correct a low BG. Parent may provide a chart with quick acting glucose amounts for BG less than target, per provider permission.
Hypoglycemia Glucagon	Emergency injectable hormone that raises blood glucose levels within 5-15 minutes; dosing based on weight.
Hyperglycemia	Refer to the Hyperglycemia algorithm in the MSDE/MDH Management of Diabetes in Schools. Encourage sugar free fluids per DMMP. Ketone monitoring is imperative in managing hyperglycemia. Ketones are released with a lack of insulin; untreated hyperglycemia can lead to elevated
Physical Education, Physical Activity, Sports	Students on insulin pumps may have options in preparing for physical activity. For example; suspending the pump, modifying the basal rate, and disconnecting the pump.

References:

American Diabetes Association. Children and adolescents, Sec 11. In Standards of Medical Care in Diabetes – 2016. Diabetes Care 2016; 39(Suppl. 1): S86-93.

Maryland State School Health Services Guideline, Management of Diabetes in Schools, 2016.

Helping Administer to the Needs of Students with Diabetes in School, Training Program for School Nurses, 2014.