Maryland Diabetes Medical Management Plan/Health Care Provider Order Form

Guidance Document

Form Section	Guidance
Insulin Dosing Carbohydrate coverage	Calculated to cover carbohydrate intake at meals or snacks. $\dfrac{\text{Grams of carbohydrate in meal}}{\text{Insulin to Carb Ratio}} = \underline{\quad}$ units of insulin
Correction dose	Calculated to correct a high blood glucose level to a desired goal. Sample formula: $\dfrac{\text{Blood glucose-Target blood glucose}}{\text{Sensitivity factor}} = \underline{\quad}$ of units for correction
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 Dose Administration Principles	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.
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/DHMH 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 blood and urine ketone levels.
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.