



Maryland Diabetes Medical Management Plan/Health Care Provider Order Form

Guidance Document

| Form Section | Guidance |
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| <p>Insulin Dosing</p> <p>Carbohydrate coverage</p> <p>Correction dose</p> <p>Fixed dose</p> <p>Fixed dose with sliding scale</p> | <p>Calculated to cover carbohydrate intake at meals or snacks. $\frac{\text{Grams of carbohydrate in meal}}{\text{Insulin to Carb Ratio}} = \text{units of insulin}$</p> <p>Calculated to correct a high blood glucose level to a desired goal. Sample formula: $\frac{\text{Blood glucose} - \text{Target blood glucose}}{\text{Sensitivity factor}} = \text{units for correction}$</p> <p>Set insulin dose at meals.</p> <p>Set insulin dose which is adjusted based on blood glucose levels.</p> |
| <p>Insulin Delivery</p> <p>Insulin Pumps</p> | <p>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.</p> |
| <p>Insulin Dose Administration Principles</p> | <p>Insulin dose calculation: round up or down to the nearest half or whole unit. May use clinical discretion: if physical activity follows, round down.</p> |
| <p>Insulin Dose Administration Principles</p> | <p>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.</p> |
| <p>Target Blood Glucose Range</p> | <p>Suggested ranges per the American Diabetes Association for all pediatric patients with Type 1.</p> <ul style="list-style-type: none"> • Before meals: 90-130 mg/dl • Bedtime/overnight: 90-150 mg/dl |
| <p>Continuous Glucose Monitoring</p> | <p>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.</p> |
| <p>Hypoglycemia</p> | <p>Examples of quick acting glucose sources (equal to approximately 15 grams CHO) include:</p> <ul style="list-style-type: none"> - 4 ounces of fruit juice - 4-6 ounces of regular soda - 3-4 glucose tablets - 2-3 rolls of smarties |

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| | <ul style="list-style-type: none"> - 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 <p>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.</p> |
| 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.