## **Tools**

Sample Diabetes Medical Management Plan Page 99 Sample Template for an Individualized Health Care Plan Page 107 Sample Emergency Care Plans for Hypoglycemia and Hyperglycemia Page 109

Section 3 contains examples of three important tools for helping schools implement effective diabetes management—a sample Diabetes Medical Management Plan, a sample template for an Individualized Health Care Plan, and sample Emergency Care Plans for Hypoglycemia and Hyperglycemia.

- The Diabetes Medical Management Plan (DMMP) is completed by the student's personal diabetes health care team and contains the medical orders that are the basis for the student's health care and education plans.
- The Individualized Health Care Plan (IHP) is prepared by the school nurse and contains the strategies for implementing the medical orders in the DMMP in the school setting.
- The Emergency Care Plans for Hypoglycemia and Hyperglycemia, based on the DMMP, summarize how to recognize and treat hypoglycemia and hyperglycemia and who to contact for help. The school nurse will coordinate development of these plans. Emergency care plans should be completed for each student with diabetes and should be copied and distributed to all school personnel who have responsibility for students with diabetes during the school day and during school-sponsored activities. Provide completed copies to the parents/guardian as well.

## **How to Use the Tools for Effective Diabetes Management**

- The parents/guardian should give the sample Diabetes Medical Management Plan (DMMP) to the student's personal diabetes health care team as a resource for preparing the medical orders.
- The student's personal diabetes health care team should fill out the plan, sign it, review it with the parents/guardian and the student, and return it to the school nurse before the student with diabetes returns to school after diagnosis, or when the student transfers to a new school.
- The student's personal diabetes health care team should review and update the DMMP at the beginning of each school year or upon a change in the student's prescribed care regimen, level of self-management, school circumstances (e.g., a change in schedule), or at the request of the student or parents/guardian or the school nurse.
- The school nurse should prepare the Individualized Health Care Plan (IHP) based on the medical orders in the DMMP and review it with the parents/guardian and the student.
- The school nurse should adapt the sample Emergency Care Plans for Hypoglycemia and Hyperglycemia to meet the needs of individual students, as prescribed in the student's DMMP.
- The Emergency Care Plans should be copied and distributed to all regular and substitute personnel who have responsibility for the student with diabetes during the school day and during school-sponsored activities. Consider laminating these plans for use throughout the school year. Provide copies to the parents/guardian.
- During all levels of training, information in the Emergency Care Plans on the signs and symptoms of hypoglycemia and hyperglycemia, how to respond, and who to contact for help in an emergency should be reviewed with school personnel.

## **Diabetes Medical Management Plan (DMMP)**

This plan should be completed by the student's personal diabetes health care team, including the parents/guardian. It should be reviewed with relevant school staff and copies should be kept in a place that can be accessed easily by the school nurse, trained diabetes personnel, and other authorized personnel.

Date of Plan:	This plan is valid for the current school year:		
Student's Name:	Date of Birth:		
Date of Diabetes Diagnosis:	type 1	type 2 Other	
School:	School Phone	Number:	
		one:	
CONTACT INFORMATION	V		
Mother/Guardian:			
		Cell:	
Email Address:			
Father/Guardian:			
		Cell:	
Email Address:			
Telephone:			
Email Address:		ımber:	
Other Emergency Contacts:			
Name:	Relationship:		
Telephone: Home		Cell:	

## **Diabetes Medical Management Plan (DMMP) - Page 2**

## **CHECKING BLOOD GLUCOSE**

Target range of blood glucose: 70–130 mg/dL 70–180 mg/dL		
Other:		
Check blood glucose level: Before lunch Hours after lunch		
2 hours after a correction dose Mid-morning Before PE After PE		
Before dismissal Other:		
As needed for signs/symptoms of low or high blood glucose		
As needed for signs/symptoms of illness		
Preferred site of testing:  Fingertip Forearm  Other:		
Brand/Model of blood glucose meter:		
Note: The fingertip should always be used to check blood glucose level if hypoglycemia is suspected.		
Student's self-care blood glucose checking skills:		
Independently checks own blood glucose		
May check blood glucose with supervision		
Requires school nurse or trained diabetes personnel to check blood glucose		
Continuous Glucose Monitor (CGM): Yes No Brand/Model: Alarms set for: (low) and (high)		
Note: Confirm CGM results with blood glucose meter check before taking action on sensor blood glucose level. If student has symptoms or signs of hypoglycemia, check fingertip blood glucose level regardless of CGM.		
HYPOGLYCEMIA TREATMENT		
Student's usual symptoms of hypoglycemia (list below):		
If exhibiting symptoms of hypoglycemia, OR if blood glucose level is less thanmg/dL, give a quick-acting glucose product equal to grams of carbohydrate.		
Recheck blood glucose in $10-15$ minutes and repeat treatment if blood glucose level is less than $\_\_\_\_\_ mg/dL$ .		
Additional treatment:		

#### Diabetes Medical Management Plan (DMMP) - Page 3

## **HYPOGLYCEMIA TREATMENT** (Continued)

Follow physical activity and sports orders (see page 7).
<ul> <li>If the student is unable to eat or drink, is unconscious or unresponsive, or is having seizure activity or convulsions (jerking movements), give:</li> <li>Glucagon:  1 mg  1/2 mg  Route:  SC  IM</li> <li>Site for glucagon injection:  arm  thigh  Other:</li> <li>Call 911 (Emergency Medical Services) and the student's parents/guardian.</li> <li>Contact student's health care provider.</li> </ul>
HYPERGLYCEMIA TREATMENT Student's usual symptoms of hyperglycemia (list below):
Check Urine Blood for ketones every hours when blood glucose levels are above mg/dL.
For blood glucose greater thanmg/dL AND at leasthours since last insulin dose, give correction dose of insulin (see orders below).
For insulin pump users: see additional information for student with insulin pump.
Give extra water and/or non-sugar-containing drinks (not fruit juices):ounces per hour.

Follow physical activity and sports orders (see page 7).

- Notify parents/guardian of onset of hyperglycemia.
- If the student has symptoms of a hyperglycemia emergency, including dry mouth, extreme thirst, nausea and vomiting, severe abdominal pain, heavy breathing or shortness of breath, chest pain, increasing sleepiness or lethargy, or depressed level of consciousness: Call 911 (Emergency Medical Services) and the student's parents/ guardian.
- Contact student's health care provider.

Additional treatment for ketones:

## **INSULIN THERAPY** Insulin delivery device: syringe insulin pen insulin pump Type of insulin therapy at school: Adjustable Insulin Therapy Fixed Insulin Therapy ■ No insulin **Adjustable Insulin Therapy** Carbohydrate Coverage/Correction Dose: Name of insulin: Carbohydrate Coverage: Insulin-to-Carbohydrate Ratio: Lunch: 1 unit of insulin per \_\_\_\_\_ grams of carbohydrate Snack: 1 unit of insulin per grams of carbohydrate **Carbohydrate Dose Calculation Example** Grams of carbohydrate in meal = \_\_ units of insulin Insulin-to-carbohydrate ratio • Correction Dose: Blood Glucose Correction Factor/Insulin Sensitivity Factor = \_\_\_\_\_ Target blood glucose = mg/dL**Correction Dose Calculation Example** Actual Blood Glucose-Target Blood Glucose = \_\_\_\_ units of insulin Blood Glucose Correction Factor/Insulin Sensitivity Factor Correction dose scale (use instead of calculation above to determine insulin correction dose): Blood glucose \_\_\_\_\_ to \_\_\_\_ mg/dL give \_\_\_\_units Blood glucose \_\_\_\_\_ to \_\_\_\_ mg/dL give \_\_\_\_ units Blood glucose \_\_\_\_\_ to \_\_\_\_ mg/dL give \_\_\_\_units Blood glucose \_\_\_\_\_ to \_\_\_\_ mg/dL give \_\_\_\_units

Diabetes Medical Management Plan (DMMP) – page 4

## **Diabetes Medical Management Plan (DMMP) – page 5**

## **INSULIN THERAPY** (Continued)

When to give insu	lin:
Lunch	
Carbohydrate	coverage only
	coverage plus correction dose when blood glucose is greater than and hours since last insulin dose.
Other:	
Snack	
No coverage for	or snack
Carbohydrate	
Carbohydrate	coverage plus correction dose when blood glucose is greater than and hours since last insulin dose.
Other:	
Correction dos	se only:
	cose greater thanmg/dL AND at least hours since last
insulin dose.	
Other:	
Fixed Insulin Thera	apv
	~P <i>)</i>
_	insulin given pre-lunch daily
	insulin given pre-snack daily
	msum given pre-snack dany
Other.	
Parental Authoriza	ation to Adjust Insulin Dose:
Yes No	Parents/guardian authorization should be obtained before administering a correction dose.
Yes No	Parents/guardian are authorized to increase or decrease correction
	dose scale within the following range: +/ units of insulin.
Yes No	Parents/guardian are authorized to increase or decrease insulin-to-carbohydrate ratio within the following range: units per prescribed grams of carbohydrate, +/ grams of carbohydrate.
Yes No	Parents/guardian are authorized to increase or decrease fixed insulin dose within the following range: +/ units of insulin.

## Diabetes Medical Management Plan (DMMP) – page 6

**INSULIN THERAPY** (Continued)

Student's self-care insulin administration skills:				
Yes No Independently calculates and gives own injections				
Yes No May calculate/give own injections with supervision				
Yes No Requires school nurse or trained diabetes personnel to calculate/give injections				
ADDITIONAL INFORMATION FOR STUDEN	T WITH INSULIN PUMP			
Brand/Model of pump: Type	e of insulin in pump:			
Basal rates during school:				
Type of infusion set:				
For blood glucose greater than mg/dI hours after correction, consider pump parents/guardian.	that has not decreased within failure or infusion site failure. Notify			
For infusion site failure: Insert new infusion se	et and/or replace reservoir.			
For suspected pump failure: suspend or remov pen.	e pump and give insulin by syringe or			
Physical Activity				
May disconnect from pump for sports activities	Yes No			
Set a temporary basal rate Yes No Suspend pump use Yes No				
Student's self-care pump skills:	Independent?			
Count carbohydrates	Yes No			
Bolus correct amount for carbohydrates consumed	Yes No			
Calculate and administer correction bolus	Yes No			
Calculate and set basal profiles	Yes No			
Calculate and set temporary basal rate	Yes No			
Change batteries	Yes No			
Disconnect pump	Yes No			
Reconnect pump to infusion set	Yes No			
Prepare reservoir and tubing	Yes No			
Insert infusion set	Yes No			
Troubleshoot alarms and malfunctions	Yes No			

Diabetes Medical Manag	ement Plan (DMMI	P) – page 7		
OTHER DIABETES M	<b>EDICATIONS</b>			
Name:	Dose:	Route: _	Times given:	
Name:				
MEAL PLAN				
Meal/Snack	Time	Carbohydrate Conten	t (grams)	
Breakfast		to		
Mid-morning snack	· · · · · · · · · · · · · · · · · · ·	to		
		to		
Mid-afternoon snack				
Other times to give snack	s and content/amo	ount:		
Instructions for when foo sampling event):	-		2 0	
Special event/party food				
		adent discretion		
Student's self-care nutrit	<del>_</del>			
	Student's self-care nutrition skills:			
Yes No Independently counts carbohydrates				
Yes I No May count carbohydrates with supervision				
Yes No Requires school nurse/trained diabetes personnel to count carbohydrates				
PHYSICAL ACTIVITY	AND SPORTS			
A quick-acting source of juice must be available at				
Student should eat 1	5 grams 🔲 30 g	grams of carbohydrate	other	
before every 30	) minutes during	after vigorous phy	sical activity	
other				

blood ketones are moderate to large. (Additional information for student on insulin pump is in the insulin section on page 6.)

Avoid physical activity when blood glucose is greater than \_\_\_\_\_ mg/dL or if urine/

If most recent blood glucose is less than \_\_\_\_ mg/dL, student can participate in physical activity when blood glucose is corrected and above \_\_\_\_ mg/dL.

## Diabetes Medical Management Plan (DMMP) – page 8

## **DISASTER PLAN**

To prepare for an unplanned disaster or emergency (72 HOURS), obtain emergency supply kit from parent/guardian.			
Continue to follow orders contained in this DMMP.  Additional insulin orders as follows:			
			Other:
SIGNATURES			
This Diabetes Medical Management Plan has been appr	roved by:		
Student's Physician/Health Care Provider	Date		
I, (parent/guardian:) gi	ive permission to the school nurse		
or another qualified health care professional or trained of	liabetes personnel of		
(school:) to perfo	rm and carry out the diabetes care		
tasks as outlined in (student:)''s I			
Plan. I also consent to the release of the information contained in this Diabetes Medical			
Management Plan to all school staff members and other	adults who have responsibility		
For my child and who may need to know this information to maintain my child's health			
and safety. I also give permission to the school nurse or	another qualified health care		
professional to contact my child's physician/health care	provider.		
Acknowledged and received by:			
Student's Parent/Guardian	Date		
Student's Parent/Guardian	Date		
School Nurse/Other Qualified Health Care Personnel	Date		

## **Sample Template**

# **Individualized Health Care Plan (IHP)**

Student:	
Grade:	
Dates:	
School Year:	
IHP Completed by and Date:	
IHP Review Dates:	
Nursing Assessment Review:	
Nursing Assessment Completed by and Date:	

Nursing Diagnosis	Sample Interventions and Activities	Date Implemented	Sample Outcome Indicator	Date Evaluated
Nursing Diagnosis  Managing Potential Diabetes Emergencies  (risk for unstable blood glucose)	Establish and document student's routine for maintaining blood glucose within goal range including while at school:  Blood Glucose Monitoring  • Where to check blood glucose:  Classroom Health room Other  • When to check blood glucose:  Before breakfast  Mid-morning Before lunch After lunch Before PE After PE 2 hours after correction dose Before dismissal As needed	7 7 7		
	<ul> <li>Other:</li></ul>			

# Individualized Health Care Plan (IHP) (Continued)

Nursing Diagnosis	Sample Interventions and Activities	Date Implemented	Sample Outcome Indicator	Date Evaluated
Supporting the Independent Student (effective therapeutic regimen management)	Hypoglycemia Management STUDENT WILL:  Check blood glucose when hypoglycemia suspected  Treat hypoglycemia (follow Diabetes Emergency Care Plan)  Take action following a hypoglycemia episode:  Keep quick-acting glucose product to treat on the spot  Type:  Location:  Routinely monitor hypoglycemia trends r/t class schedule (e.g., time of PE, scheduled lunch, recess) and insulin dosing  Report and consult with parents/ guardian, school nurse, HCP, and school personnel as appropriate		Monitors Blood Glucose (records, reports, and correctly responds to results)  Never Consistently Demonstrated  1 2 3 4 5	
Supporting Positive Coping Skills (readiness for enhanced coping)	<ul> <li>Environmental Management</li> <li>Ensure confidentiality</li> <li>Discuss with parents/guardian and student preference about who should know student's coping status at school</li> <li>Collaborate with parents/guardian and school personnel to meet student's coping needs</li> <li>Collaborate with school personnel to create an accepting and understanding environment</li> </ul>		Readiness to Learn Severely Not Compromised Compromised 1 2 3 4 5	

## **Hypoglycemia Emergency Care Plan**

(For Low Blood Glucose)

Student's Name:	
Grade/Teacher:	
Date of Plan:	
<b>Emergency Contact Information</b>	
Mother/Guardian:	
	Home phone:
Work phone:	Cell:
Father/Guardian:	
Email address:	Home phone:
Work phone:	Cell:
Health Care Provider:	
Contact number(s):	
Trained Diabetes Personnel:	
Contact number(s):	
L.	

The student should never be left alone, or sent anywhere alone, or with another student, when experiencing hypoglycemia.

Causes of Hypoglycemia	Onset of Hypoglycemia
<ul> <li>Too much insulin</li> <li>Missing or delaying meals or snacks</li> <li>Not eating enough food (carbohydrates)</li> <li>Getting extra, intense, or unplanned physical activity</li> </ul>	Sudden—symptoms may progress rapidly
<ul> <li>Being ill, particularly with gastrointestinal illness</li> </ul>	

	Hypoglycemia Symptoms Circle student's usual symptoms.				
	Mild to Moderate		Severe		
•	Shaky or jittery	<ul> <li>Uncoordinated</li> </ul>	Inability to eat or drink		
•	Sweaty	• Irritable or nervous	<ul> <li>Unconscious</li> </ul>		
•	Hungry	<ul> <li>Argumentative</li> </ul>	• Unresponsive		
•	Pale	<ul> <li>Combative</li> </ul>	Seizure activity or convulsions		
•	Headache	<ul> <li>Changed personality</li> </ul>	(jerking movements)		
•	Blurry vision	<ul> <li>Changed behavior</li> </ul>			
•	Sleepy	• Inability to concentrate			
•	Dizzy	• Weak			
•	Confused	• Lethargic			
•	Disoriented	• Other:			

## **Actions for Treating Hypoglycemia**

Notify School Nurse or Trained Diabetes Personnel as soon as you observe symptoms. If possible, check blood glucose (sugar) at fingertip.

Treat for hypoglycemia if blood glucose level is less than \_\_\_\_mg/dL.

## WHEN IN DOUBT, ALWAYS TREAT FOR HYPOGLYCEMIA AS SPECIFIED BELOW.

#### **Treatment for Mild to Moderate Treatment for Severe Hypoglycemia Hypoglycemia** • Provide quick-acting glucose (sugar) product Position the student on his or her side. grams of carbohydrates. Do not attempt to give anything by mouth. Examples of 15 grams of carbohydrates Administer glucagon: mg at include: site. O 3 or 4 glucose tablets While treating, have another person call O 1 tube of glucose gel 911 (Emergency Medical Services). O 4 ounces of fruit juice (not low-calorie Contact the student's parents/guardian. or reduced sugar) O 6 ounces of soda (½ can) (not low-Stay with the student until Emergency calorie or reduced sugar) Medical Services arrive • Notify student's health care provider. Wait 10 to 15 minutes. Recheck blood glucose level. Repeat quick-acting glucose product if blood glucose level is less than Contact the student's parents/guardian.

# **Hyperglycemia Emergency Care Plan**

(For High Blood Glucose)

Student's Name:				
Grade/Teacher:				
Date of Plan:				
<b>Emergency Contact Information</b>				
Mother/Guardian:				
	Home phone:			
Work phone:	Cell:			
Father/Guardian:				
Email address:	Home phone:			
Work phone:	Cell:			
Health Care Provider:				
Phone number:				
Contact number(s):				
Trained Diabetes Personnel:				

Causes of Hyperglycemia	Onset of Hyperglycemia
Too little insulin or other glucose- lowering medication	Over several hours or days
<ul> <li>Food intake that has not been covered adequately by insulin</li> </ul>	
<ul> <li>Decreased physical activity</li> </ul>	
• Illness	
• Infection	
• Injury	
Severe physical or emotional stress	
Pump malfunction	

## Hyperglycemia Signs

#### **Hyperglycemia Emergency Symptoms**

(Diabetic Ketoacidosis, DKA, which is associated with hyperglycemia, ketosis, and dehydration)

#### Circle student's usual signs and symptoms.

- Increased thirst and/or dry mouth
- Frequent or increased urination
- Change in appetite and nausea
- Blurry vision
- Fatigue
- Other:

- Dry mouth, extreme thirst, and dehydration
- Nausea and vomiting
- Severe abdominal pain
- Fruity breath
- Heavy breathing or shortness of breath
- Chest pain
- Increasing sleepiness or lethargy
- Depressed level of consciousness

# Treatment for Hyperglycemia Check the blood glucose level: \_\_\_\_ mg/dL. Check urine or blood for ketones if blood glucose levels are greater than: \_\_\_\_ mg/dL. Treatment for Hyperglycemia Emergency Call parents/guardian, student's health care provider, and 911 (Emergency Medical Services)

**Actions for Treating Hyperglycemia** 

- If student uses a pump, check to see if pump is connected properly and functioning.
- Administer supplemental insulin dose: . .
- Give extra water or non-sugar-containing drinks (not fruit juices): \_\_\_\_\_ ounces per hour.
- Allow free and unrestricted access to the restroom.
- Recheck blood glucose every 2 hours to determine if decreasing to target range of mg/dL.
- Restrict participation in physical activity if blood glucose is greater than \_\_\_\_ mg/dL and if ketones are moderate to large.
- Notify parents/guardian if ketones are present.

right away.

• Stay with the student until
Emergency Medical Services
arrive