

Tools for Schools

Preface



Federal and state laws and regulations guarantee the protection of education rights for students with healthcare needs in school. Healthcare services in school are those services prescribed by a student's Authorized Health Care Provider, require medically related training and are necessary for the student to attend school. All students with diabetes qualify for healthcare services in school.

In most states, the credentialed school nurse is the qualified school personnel responsible for implementing education code and regulations for safe management of healthcare services in school. Safe management includes development of an Individualized School Healthcare Plan (ISHP) by the school nurse in collaboration with the parent/guardian, the student and Authorized Health Care Provider to identify the student's health care and accommodation needs required for school attendance.

This section contains all the tools for the school nurse to ensure that proper training and standard management of healthcare services in school for students with diabetes occurs. These tools have been specifically developed for school use. These tools must be used in compliance with individual state education codes and laws as well as professional standards that govern the practice of health care professionals.

Tools for Schools

Descriptions



| Tool | Page number(s) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| A. CHECKLIST & ISHP | |
| 1. School Nurse Checklist: The school nurse uses this as a guide for prioritizing school nursing activities when creating an ISHP for a student with diabetes. | 4 |
| 2. Table of Contents for ISHP and Procedures: The procedures for diabetes care at school are included in this section. The specific procedures that the individual student will need, (as requested by the parent/guardian and authorized by the Authorized Health Care Provider), are compiled by the school nurse. The school nurse then completes The Table of Contents page, places it before all the requested procedures, and attaches these pages to the completed ISHP. | 6 |
| 3. Parent Consent and Authorized Healthcare Provider Authorization for Diabetes Management at School and School Sponsored Event: The school nurse obtains signatures on the Parent Consent and Authorized Health Care Provider form. This provide the legal permission for school personnel to provide health care services. The parent/guardian must provide written consent in order for designated school personnel to implement procedures for diabetes care and to allow sharing of medical information between the school nurse and Authorized Health Care Provider. The Authorized Health Care Provider provides specific orders for care and authorizes the implementation of procedures for diabetes care at school. Parent/guardian and Authorized Health Care Provider signatures are required annually and whenever changes occur to ensure the provisionof safe care. | 7 |
| 4. Insulin Dose During a Disaster: the school nurse uses this form to obtain authorization for a specific insulin regimen during a disaster while student is at school. | 8 |
| 5. Individualized School Healthcare Plan for Management of Diabetes at School and School Sponsored Events: The IHSP is developed by the school nurse in collaboration with the parent(s)/care provider, student and healthcare team. The purpose of an (ISHP) is to provide pupils with a healthcare plan that is specific for school. It allows for safe management of healthcare needs at school and details the necessary accommodations required for school and school-related activities. The ISHP also delineates the equipment that is needed, who performs the | 9-17 |

Tools for Schools

Descriptions (continued)

| Tool | Page number(s) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| care, how the care is to be implemented, when the care is implemented, what type of supervision and/or assistance is needed and it identifies healthcare goals for the student. Relevant information is used to train unlicensed assistive personnel. Copies of the ISHP (excluding "Confidential" information) are given to designated trained personnel to ensure proper care is given. | |
| B. PROCEDURES | |
| 1. Procedures: | 18-39 |
| The school nurse uses these research based, step by step, procedures on specific diabetes care tasks for training assistive personnel; all of the procedures which apply to the individual student are attached to the ISHP including the Diabetes Disaster Plan . | |
| C. MISCELLANEOUS TOOLS | |
| 1. Low Blood Glucose Treatment for School: | 40 |
| 2. High Blood Glucose Treatment for School: | 41 |
| The school nurse completes these and distributes for use as a quick reference for classroom teacher's folders, health office, field trips, etc. | |
| 3. Outline for the Level of Care Needed to Perform Diabetes Procedures in School: | 42-43 |
| The school nurse completes this in accordance with state laws and regulations. It can be used by school nurses and administrators when assigning procedural tasks. | |
| 4. Insulin Delivery Systems: | 44-45 |
| The school nurse uses this as a resource for alternatives in providing insulin at school. For example, an automatic insulin injector can be used for the child who needs assisting with piercing the skin and an insulin pen can be used for the child who has difficulty in drawing up the insulin. | |

Tools for Schools

School Nurse Checklist



Dates

- ___ 1. School Nurse is notified that student with diabetes will be attending school.
- ___ 2. Call or arrange meeting/home visit with parents/careprovider and student, if appropriate, and complete the Individualized School Healthcare Plan (ISHP), (refer to **Section V**).
 - a. Discuss current health status and management of diabetes care at home.
 - b. Observe parent/student performing healthcare procedures.
 - c. Discuss parent/student expectations of diabetes care while at school.
 - d. Discuss level of care needed in school.
 - e. Discuss role of the personnel involved in providing the health care at school.
 - f. Obtain parent/guardian written consent (face sheet of ISHP) to include the following:
 - 1) To administer healthcare services for school attendance and school related activities.
 - 2) To allow the school nurse to communicate with the primary healthcare provider.
 - g. Collaborate with parent/careprovider to develop details of the ISHP, potential accommodations and all supplies needed during the school schedule, all school related activities and a 3-day disaster plan.
 - h. Provide parent with copies of all the forms if desired.
- ___ 3. Obtain signatures on Parent Consent and Authorized Health Care Provider's Authorization for Diabetes Management at School and School Sponsored Events. (**Section V**, ISHP).
- ___ 4. Assemble procedures as identified in the ISHP and review with site administrator. The site administrator designates staff and back-up staff to be trained. Training for a specific student can begin when signatures are obtained on the Parent Consent and Authorized Health Care Provider's Authorization for Management of Diabetes at School and School Sponsored Events form. Designated staff cannot provide services until completion of training and competency is achieved. Interim arrangements must be made for student school attendance if designated trained staff are unavailable.

If a 504 Plan is requested or an IEP is determined to be necessary (refer to **Section V**, 504/IEP), follow step 5. If not, proceed to step 6.

Tools for Schools

School Nurse Checklist

(continued)

- ____ 5. a. When a 504/IEP student study team meeting convenes, the team reviews the ISHP and accepts and/or makes changes as agreed. A copy of the final ISHP is attached to the IEP or 504 Plan.
 - b. The assessment component of the IEP or 504 Plan must include a statement indicating the attachment of the ISHP.
 - c. The Designated Instructional Services (DIS) component of the IEP or 504 Plan must include School Nursing Services for managing the ISHP and training and supervising designated staff.
- ____ 6. Plan, organize and implement a designated staff training regarding Diabetes Management. This will include the following sections from this The Curriculum for Diabetes Care in the Schools Binder: Diabetes Basics, ISHP and Procedures.
 - a. PLAN:
 - 1) Review CPR dates of designated staff. Arrange for training if needed.
 - 2) Using the Diabetes Basics Training Program, ISHP and Procedures provide designated staff with a training agenda and a time frame for specific components to be trained on. Staff that includes teachers, lunchroom and playground personnel, principal, transportation, coaches and bus drivers, etc. are offered a condensed version specifically providing emergency diabetes care.
 - b. ORGANIZE:
 - 1) Duplicate necessary training materials for all participants.
 - 2) Develop a schedule for training.
 - c. IMPLEMENT:
 - 1) Train all designated staff to a level of 100% competency and document staff trainings (use Skills Checklists, Records and Logs). Obtain staff signatures on training logs (Records and Logs).
 - 2) Supervise and monitor staff performance on all procedures and student outcomes.
- ____ 7. Manage the ISHP. With parent/careprovider input, monitor and review outcome of the plan and initiate the necessary modifications not requiring Authorized Health Care Provider authorization. Maintain current paperwork for all modifications requiring Authorized Health Care Provider authorization (refer to Parent Consent and Authorized Health Care Provider's Authorization for Diabetes Management at School and School Sponsored Events form, **Section V**). Inform and/or train appropriate designated staff regarding all modifications.
- ____ 8. Arrange a classroom presentation on diabetes if requested by parent/careprovider.

Individualized School Healthcare Plan & Procedures for Management of Diabetes at School and School Sponsored Events

(Assemble all paperwork that applies and attach to Table of Contents)

| Pupil: | DOB: | School: | Grade: |
|--------------------------|---------------------------------------------------------------------------|---------|--------|
| Table of Contents | | | |
| (Check All That Apply) | Title | Page # | |
| ___ | Parent Consent and Authorized Health Care Provider Authorization form | ___ | |
| ___ | Insulin Dose during a Disaster | ___ | |
| ___ | Individualized School Healthcare Plan | ___ | |
| ___ | General Information | ___ | |
| ___ | Procedure For Mild or Moderate Low Blood Glucose | ___ | |
| ___ | Procedure for Severe Low Blood Glucose (Hypoglycemia/Insulin Reaction) | ___ | |
| ___ | Glucose Gel followed by Glucagon Injection | ___ | |
| ___ | Glucagon Injection Followed By Glucose Gel When Able To Swallow | ___ | |
| ___ | Glucose Gel Only | ___ | |
| ___ | Procedure For Blood Glucose Testing | ___ | |
| ___ | Procedure For High Blood Glucose (Hyperglycemia) | ___ | |
| ___ | Procedure For Blood Ketone Testing | ___ | |
| ___ | Procedure for Insulin Administration | ___ | |
| ___ | ___ Insulin Pen ___ Insulin Pump With Supervision/Assistance | ___ | |
| ___ | ___ Insulin Pump ___ Syringe | ___ | |
| ___ | Pump Skills Checklist | ___ | |
| ___ | Disaster Preparedness for Students with Diabetes | ___ | |
| Other: | | | ___ |
| ___ | _____ | | ___ |
| ___ | _____ | | ___ |
| ___ | _____ | | ___ |
| ___ | _____ | | ___ |
| ___ | _____ | | ___ |

Parent Consent and Authorized Health Care Provider Authorization For Management of Diabetes at School and School Sponsored Events

Individualized School Healthcare Plan (ISHP) and Procedures will provide details for Implementation
(ATTACH "ALGORITHMS FOR BLOOD GLUCOSE RESULTS")

| | | | |
|---------------------|-------------------|----------------------|---------------------|
| Pupil: _____ | DOB: _____ | School: _____ | Grade: _____ |
|---------------------|-------------------|----------------------|---------------------|

Authorized Health Care Provider's Written Authorization: Please initial and check all boxes that apply

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. Blood Glucose Testing <input type="checkbox"/> Before am snack <input type="checkbox"/> Before lunch <input type="checkbox"/> 2 hours after lunch <input type="checkbox"/> 2 hours after a correction dose <input type="checkbox"/></p> <p>For suspected hypoglycemia <input type="checkbox"/> At student's discretion excluding suspected hypoglycemia <input type="checkbox"/> Only at student's discretion <input type="checkbox"/> No blood glucose testing at school Target range for blood glucose at school _____</p> <p>2. Hypoglycemia* - blood glucose less than 70 <input type="checkbox"/> Self treatment of mild lows <input type="checkbox"/> Assistance for all lows <input type="checkbox"/> Provide extra protein & carb snack after treating lows or feed snack/meal early (if scheduled within the hour) <input type="checkbox"/> OK to use glucose gel inside check; even if unconscious <input type="checkbox"/> Glucagon injection IM (for severe hypoglycemia): <u> </u> 0.5 mgm <u> </u> 1 mgm</p> <p>3. Hyperglycemia* <input type="checkbox"/> If blood glucose > _____ initiate insulin administration order <input type="checkbox"/> If blood glucose > _____ or exhibit symptoms of ketosis, ketones <input type="checkbox"/> Check urine ketones <input type="checkbox"/> Check blood ketones</p> <p>4. Meal Plan Snacks/meals: <input type="checkbox"/> Mandatory <input type="checkbox"/> At student's discretion <input type="checkbox"/> AM snack time: _____ PM snack time: _____ <input type="checkbox"/> Lunch time: _____ Other: _____ <input type="checkbox"/> Extra food allowed: <input type="checkbox"/> Parent's discretion <input type="checkbox"/> Student's discretion</p> <p>5. Exercise (Check and/or complete all that apply): Liquid and solid carb sources must be available before, during and after all exercise. No exercise if most recent blood glucose is <70 <input type="checkbox"/> Eat _____gms CHO for vigorous exercise: <input type="checkbox"/> Before, <input type="checkbox"/> Every 30 minutes during, <input type="checkbox"/> After <input type="checkbox"/> No exercise when blood glucose is > _____ or ketones are present</p> <p>6. Authorized Health Care Provider Verification: Student can self-perform the following procedures (parent and school nurse must verify competency as well): <input type="checkbox"/> Blood glucose testing <input type="checkbox"/> Measuring insulin <input type="checkbox"/> Injecting insulin <input type="checkbox"/> Determining insulin dose <input type="checkbox"/> Independently operate insulin pump <input type="checkbox"/> Other _____</p> <p>*(Refer to attached "Algorithms for Blood Glucose Results" for summary of treatment procedures)</p> | <p>7. Insulin Orders (complete only if insulin is needed at school): Brand name and type: _____ Administration times (fill in times for only those that apply): <input type="checkbox"/> Breakfast <input type="checkbox"/> AM snack <input type="checkbox"/> Lunch <input type="checkbox"/> PM snack <input type="checkbox"/> Other: _____ Insulin administration via: <input type="checkbox"/> Syringe and vial <input type="checkbox"/> Insulin pump <input type="checkbox"/> Insulin pen <input type="checkbox"/> Other: _____</p> <p>Insulin dose determined by (Check all that apply): Food/bolus doses: <input type="checkbox"/> Standard lunchtime dose: _____ <input type="checkbox"/> Insulin to carbohydrate ratio: _____ # unit(s) insulin per _____ gms Carbohydrate <input type="checkbox"/> Correction Calculation (complete only those that apply) • Give _____ unit(s) for every _____ mg/dl above _____ mg/dl • Decrease correction by _____ % unit(s) if PE or increased activity is anticipated after correction dose, or last dose was given less than 2 hours before.</p> <p>OR <input type="checkbox"/> Written sliding scale as follows: Blood Glucose from _____ to _____ = _____ Units Blood Glucose from _____ to _____ = _____ Units Blood Glucose from _____ to _____ = _____ Units Blood Glucose from _____ to _____ = _____ Units</p> <p><input type="checkbox"/> Add carb calculation insulin dose and correction calculation for total insulin dose/bolus</p> <p>8. Bus Transportation: <input type="checkbox"/> Blood glucose test not required prior to boarding bus <input type="checkbox"/> Test blood glucose 10 to 20 minutes before boarding bus • Provide 15 gm glucose source if blood glucose is < _____ mg/dl • Provide care as follows: _____ Other: _____</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Other Needs: Specify on Authorized Health Care Provider stationary or prescription pad and attach.

Authorized Health Care Provider Authorization for Management of Diabetes at School

My signature below provides authorization for the above written orders. I understand that all procedures will be implemented in accordance with state laws and regulations. I understand that specialized physical health care services may be performed by unlicensed designated school personnel under the training and supervision provided by the school nurse. This authorization is for a maximum of one year. If changes are indicated, I will provide new written authorization (may be faxed).

Authorized Health Care Provider Name: _____ **Signature** _____ **Date** _____ **Phone** _____
Address _____ **City** _____ **Zip** _____

I have instructed _____ (Child's Name) in the proper way to use his/her medications. It is my professional opinion that _____ (Child's Name) should be allowed to carry and use that medication by him/herself. _____ **Authorized Healthcare Provider Initial**

I request that the School Nurse provide me with a copy of the completed Individualized School Healthcare Plan (ISHP).

Parent Consent for Management of Diabetes at School

I(We), the undersigned, the parent(s)/guardian(s) of the above named pupil, request that the following for Management of Diabetes in school be administered to our (my) child in accordance with state laws and regulations.

- I will:
1. Provide the necessary supplies and equipment
 2. Notify the school nurse if there is a change in pupil health status or attending Authorized Health Care Provider
 3. Notify the school nurse immediately and provide new consent for any changes in doctor's orders.

I authorize the school nurse to communicate with the Authorized Health Care Provider when necessary. I understand that I will be provided a copy of my child's completed Individual School Healthcare Plan. (ISHP)

Parent/Guardian Signature _____ Date _____
 _____ Date _____

Reviewed by School Nurse(Signature) _____ **Date** _____
Reviewed by Principal (Signature) _____ **Date** _____

Pupil: _____ DOB: _____ Date: _____

Parent Consent and Authorized Health Care Provider Authorization for Insulin Dose During a Disaster

Dose administered via _____prefilled syringe _____insulin pen _____syringe _____insulin pump

RECOMMENDATIONS

For students who do not carb count, if insulin is available but there is a limited food supply then consider decreasing the usual dose of NPH, Lente, Ultralente or Lantus by 25%. Regular or rapid-acting insulin may not be needed. Initial space below if in agreement:
_____ If there is a limited food supply, decrease dose of long acting insulin by 25% and do not use short acting insulin.

Usual daily insulin regimen (decrease the following doses if limited food supply):

Insulin Brand Name and Type(s): _____

| | Time of Day | Units of NPH, Lente, or Ultralene or Lantus | | Units of Regular, Humalog or Novolog | |
|-----------|-------------|---------------------------------------------|------|--------------------------------------|------|
| | | ▼ 20-30% | ▼10% | Omit | ▼25% |
| Breakfast | | | | | |
| Lunch | | | | | |
| Dinner | | | | | |
| Bedtime | | | | | |

_____ For students who are on pumps, carb count, and/or use multiple injections use the following calculations with (circle one) Regular Humalog Novolog

_____ Insulin to carbohydrate ratio:

• _____ #unit(s) insulin per _____ gms Carbohydrate

_____ Correction calculation (complete only those that supply):

• Give _____ unit(s) for every _____ mg/dl above _____ mg/dl

• Decrease correction by _____% unit(s) if PE or increased activity is anticipated after dose, or last dose was given less than 2 hours before

OR

_____ Written sliding scale as follows:

Blood glucose from _____ to _____ = _____ Units

Blood glucose from _____ to _____ = _____ Units

Blood glucose from _____ to _____ = _____ Units

Blood glucose from _____ to _____ = _____ Units

_____ Add carb calculation insulin dose and correction calculation for total insulin dose/bolus

AUTHORIZED HEALTH CARE PROVIDER AUTHORIZATION

My signature below provides authorization for the above written orders. I understand that all procedures will be implemented in accordance with state law governing school health services. This authorization is for a maximum of one year. If changes are indicated, I will provide new written authorization (may be faxed).

Authorized Health Care Provider Signature: _____ Date: _____

Address: _____ City _____ Zip _____

(Use office stamp)

Phone Number _____

PARENT OR GUARDIAN CONSENT

We(I), the undersigned, the parent(s)/guardian of the above named pupil, request that the above defined insulin doses be given during a disaster for our (my) child in accordance with State laws and regulations.

Parent/guardian Signature: _____ Date: _____

Reviewed by School Nurse (signature): _____ Date: _____

Reviewed by Principal (signature): _____ Date: _____

Note: Completion of this form is for disaster purposes only. Failure to complete this form does not give reason for school exclusion.

Individualized School Health Care Plan (ISHP)

| | | | |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------|
| Pupil: | | | |
| Grade: | D.O.B: | Educational Placement: | |
| School: | | | |
| District: | | | |
| School Nurse: | Pager # | Cell # | |
| Parent/Guardian Consent Date: | | Authorized Health Care Provider Authorization Date: | |
| Key Contacts | | | |
| Mother | Home # | Work # | Pager # |
| Father | Home # | Work # | Pager # |
| Guardian | Home # | Work # | Pager # |
| Home Address | | City | Zip |
| Other Contact (Relationship): | | Home # | Work # |
| Physician | | Phone # | Fax # |
| Physician Address | | City | Zip |
| Health Care Service Needed at School | Management of Diabetes at School and School Sponsored Events: | | |
| | <ol style="list-style-type: none"> 1. The purpose of an Individualized School Healthcare Plan (ISHP) is to provide safe management of health care and services for pupils at school and during school-related activities. 2. The ISHP is developed by the school nurse in collaboration with the pupil's parent/guardian, authorized health care provider and pupil (if appropriate). 3. The ISHP is a management tool that follows the nursing process and includes: <ol style="list-style-type: none"> a. A current health assessment by the school nurse identifying the health care needs of pupils and all accommodations needed in school. b. Procedures for health care provision of students in school and a school schedule plan of who will do what, when, where and how. c. Records of designated staff training and supervision by the school nurse. d. Records of who has a copy of the ISHP. e. Records of review and monitoring of the plan for outcomes by the school nurse. f. Records of evaluation of the plan by the school nurse, and changes made by the school nurse, parent or authorized health care provider. g. Records of parent written consent for the ISHP. 4. The ISHP may be included in and attached to a 504 Plan and/or IEP. 5. ISHP revisions must be directed to the school nurse prior to implementation. All authorized health care provider changes must have authorized health care provider written authorization and written parent consent. Revisions, not requiring authorized healthcare provider authorization, may be made with written parent consent. 6. ISHP review must occur annually and/or whenever changes are necessary to ensure provision of safe care. | | |

Individualized School Healthcare Plan School Nurse Assessment (Confidential)

School Nurse to Complete with Parent and Pupil

| | | | |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|
| Pupil: | DOB: | School: | Grade: |
| SUBJECTIVE AND OBJECTIVE INFORMATION | | | |
| 1. Height/Weight - Test date: | Height: _____ Weight: _____ Appropriate weight for height: _____ | | |
| 2. Vision - Test date: | School Record Results: | | |
| 3. Hearing - Test date: | School Record Results: | | |
| 4. Immunizations: | | | |
| 5. Diagnosis/ Current Status | Age at diagnosis was _____. The target range for maintaining blood glucose is _____ mg/dl to _____ mg/dl. The most recent Hemoglobin A1C level was _____ mg/dl on _____. (Hemoglobin A1C is the lab value for blood glucose control during the previous 6 weeks to 3 months. Ranges are: 6 - 8 (good), 9 - 10 (fair), 11+ (poor) | | |
| 6. Current Health Status and Management of Healthcare at Home (include school attendance if appropriate) | | | |
| 7. Other Health Problems | | | |
| 8. Health Agencies/School DIS Service | | | |
| 9. Healthcare Procedure Requests for School and Special Considerations | | | |
| 10. Observation of Student - Physical Finding | | | |
| 11. Observations of Healthcare Procedures Performed by Parent/Student | | | |
| 12. Other | | | |

Individualized School Healthcare Plan
School Nurse Assessment Continued (Confidential)
 School Nurse to Complete with Parent and Pupil

| Pupil: | DOB: | School: | Grade: |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|
| Analysis Determination of Level of Care Needed in School | <input type="checkbox"/> School nurse (responsible for training, monitoring, and supervising designated staff) | | |
| | <input type="checkbox"/> Designated unlicensed school personnel..... <input type="checkbox"/> One: One | | |
| | <input type="checkbox"/> Licensed personnel..... <input type="checkbox"/> One: One | | |
| | Pupil: <input type="checkbox"/> Independent <input type="checkbox"/> Needs assistance <input type="checkbox"/> Needs supervision <input checked="" type="checkbox"/> Needs total care | | |
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| Explanation of Who Will be Providing Health Care Services in Accordance with State Law: | | | |
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| Authorization Forms Reviewed and Given to Parent | | | |
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| Discussion of Plan with Parent: Identify School Goals and Nursing Intervention | | | |
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**Individualized School Health Care Plan (ISHP)
For Management of Diabetes at School & School Sponsored Events**

School Nurse to Complete with Parent and Pupil

| Pupil | DOB | School | Grade |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|
| <p>Routines for Diabetes Care At School Per Parent Request/ Consent</p> | <p>MEAL PLAN:</p> <p>Snacks: To eat snack at/in (specify location) _____</p> <p><input type="checkbox"/> Completes task independently</p> <p><input type="checkbox"/> Needs reminder</p> <p><input type="checkbox"/> Needs compliance verification of task completion</p> <p>Lunch: <input type="checkbox"/> Completes task independently</p> <p><input type="checkbox"/> Needs compliance verification of task completion</p> <p>Classroom/School Parties, food treats will be handled as follows if “at parent discretion” is approved on authorization page - under “Meal Plan”):</p> <p><input type="checkbox"/> Pupil will eat the treat</p> <p><input type="checkbox"/> Replace with parent supplied alternative</p> <p><input type="checkbox"/> Put in baggie and take home with teacher note</p> <p><input type="checkbox"/> Modify the treat as follows: _____</p> <p><input type="checkbox"/> Other: _____</p> <p>Blood Glucose Testing:</p> <p>Location for testing _____</p> <p><input type="checkbox"/> Completes task independently</p> <p><input type="checkbox"/> Needs adult to verify results</p> <p><input type="checkbox"/> Needs assistance (specify) _____</p> <p>_____</p> <p><input type="checkbox"/> Send parent copy of blood glucose log every: ____ month ____ week ____ day</p> <p>TREATMENT OF HYPERGLYCEMIA:</p> <p><input type="checkbox"/> Requests water bottle appropriately during class time (if symptomatic from hyperglycemia)</p> <p><input type="checkbox"/> Tests ketones independently</p> <p><input type="checkbox"/> Requires assistance (specify) _____</p> <p><input type="checkbox"/> Other: _____</p> <p>INSULIN ADMINISTRATION:</p> <p>Dose Preparation & Administration by:</p> <p><input type="checkbox"/> Pupil <input type="checkbox"/> Completes task independently <input type="checkbox"/> Requires assistance (specify): _____</p> <p>_____</p> <p><input type="checkbox"/> Parent <input type="checkbox"/> Parent designee <input type="checkbox"/> Licensed nurse</p> <p>EXERCISE: <input type="checkbox"/> Student requires compliance verification of Authorized Health Care Provider orders</p> <p><input type="checkbox"/> Vigorous exercise (if any) to include the following: _____</p> <p>_____</p> <p><input type="checkbox"/> Other _____</p> <p>OFF CAMPUS, SCHOOL RELATED ACTIVITIES:</p> <p>Field Trips: All diabetic supplies taken and care is provided according to this ISHP (a copy is taken on trip).</p> <p>Scheduled After-school Activities: (Note: all school related activities must have trained staff available at all times):</p> <p>_____</p> <p>SPECIFY _____</p> <p>_____</p> | | |
| <p>Other</p> | | | |

**Individualized School Health Care Plan (ISHP)
For Management of Diabetes at School**
School Nurse to Complete with Parent and Pupil

| Pupil | DOB | School | Grade |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Equipment And Supplies</p> | <p><u>Provided By Parent</u></p> <p><u>Daily Snacks</u> (for AM/PM snack times) Specify: _____</p> <p><u>Extra Snacks</u> (for before, after, and/or during exercise) Specify: type of snacks: _____ _____</p> <p><u>Blood Glucose Meter Kit</u> (Includes meter, testing strips, lancing device with lancet, cotton balls, spot bandages)</p> <p><u>Brand/Model:</u> _____</p> <p><u>Low Blood Glucose Supplies</u> (5 day supply preferable)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Fast acting carbohydrate drinks: (Apple juice and/or orange juice, sugared soda pop-NOT diet) <input type="checkbox"/> Glucose tablets, 1-2 packages preferred <input type="checkbox"/> Glucose gel products (Insta-Glucose, Monogel or Glutose/25-31 gms.) 1-2 preferred <input type="checkbox"/> Gel cakemate (not frosting), (19 gm., mini-purse size), 1-2 preferred <input type="checkbox"/> Prepackaged snacks (such as crackers with cheese or peanut butter, Nite-Bite™, etc.) <p><u>High Blood Glucose Supplies</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Ketone test strips/bottle or meter kit <input type="checkbox"/> Urine cup <input type="checkbox"/> Water bottle <p>Note: Timing device may be wall clock or watch worn by pupil or personnel.</p> | | <p><u>Provided By Parent (Continued)</u></p> <p><u>Insulin Supplies</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Insulin pen <input type="checkbox"/> Pre-filled syringes (labeled per dose) <input type="checkbox"/> Insulin and syringes <input type="checkbox"/> Extra pump supplies such as: <ul style="list-style-type: none"> <input type="checkbox"/> Vial of insulin, syringes <input type="checkbox"/> Pump syringe <input type="checkbox"/> Pump tubing/needle <input type="checkbox"/> Batteries <input type="checkbox"/> Tape <input type="checkbox"/> Insertion device <p>Insulin supplies storage location: _____ _____</p> <p><u>Emergency Supplies</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Glucagon kit stored: _____ <p><u>3 Day Disaster Diabetes Supplies</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Vial of insulin; 6 syringes <input type="checkbox"/> Insulin pen with cartridge and needles <input type="checkbox"/> Blood glucose testing kit (testing strips, lancing device with lancets) <input type="checkbox"/> Glucose gel product and glucose tablets <input type="checkbox"/> Glucagon kit <input type="checkbox"/> Food supply (include daily meal plan) stored as follows: _____ <input type="checkbox"/> Ketone strips/plastic cup <p>School will include a copy of the ISHP for diabetes management with the disaster supplies. Stored as follows: _____ _____</p> <p><u>Other Supplies</u>, Specify:</p> |

General Information

Type 1 diabetes is a disorder where there is absolute insulin deficiency. Insulin is required for cells to use energy obtained from sugar and starches. Most children require insulin injections daily, usually AM and PM. Managing diabetes requires a daily balance of insulin, food and exercise. This assists in achieving proper blood glucose levels for healthy living and prevention of diabetes complications.

A. Goals for Management of Diabetes in School includes the following:

1. Provide for compliance with daily routines for diabetes management.
2. Train designated personnel to recognize the signs of Low Blood Glucose (Insulin Reaction/Hypoglycemia), recognize the signs of High Blood Glucose (Hyperglycemia), provide assistance for restoring appropriate glucose levels, and/or obtain emergency care.
3. Promote pupil self-help skills as appropriate.

B. Pupils with diabetes may experience the following conditions:

1. **Low Blood Glucose (Insulin Reaction, Hypoglycemia):** A condition of abnormally low blood glucose. This is caused by not eating enough food, extra exercise, skipping a meal, taking too much insulin, or illness (especially vomiting and diarrhea). Symptoms may be gradual or sudden and, if not treated, can result in loss of consciousness or convulsions. Temporary cognitive impairment can occur with hypoglycemia.
2. **High Blood Glucose (Hyperglycemia):** A condition when blood sugar is too high over an extended period of time. This is caused by not taking enough insulin for the amount of food eaten, not exercising enough, stress, or illness or growing needs. The signs may depend on how long the condition has existed and include thirst, frequent urination, dry skin, hunger, blurred vision, lethargy, drowsiness, and/or change in mood or personality. Undiagnosed diabetics often seek initial medical care when signs of high blood sugar become apparent. Behavioral changes such as defiance or hyperactivity can occur with hyperglycemia.
3. **Ketoacidosis:** If untreated becomes a potentially life threatening condition that may occur during high blood glucose. At such times, the body may burn fat, as an alternate source of glucose, in an attempt to provide energy. Ketones are produced as a by-product of such fat metabolism. This is an inefficient way to produce energy and can cause side effects of lethargy, fruity breath odor, headache, nausea, vomiting, rapid breathing, and eventually diabetic coma.

Blood Glucose Testing

General Information

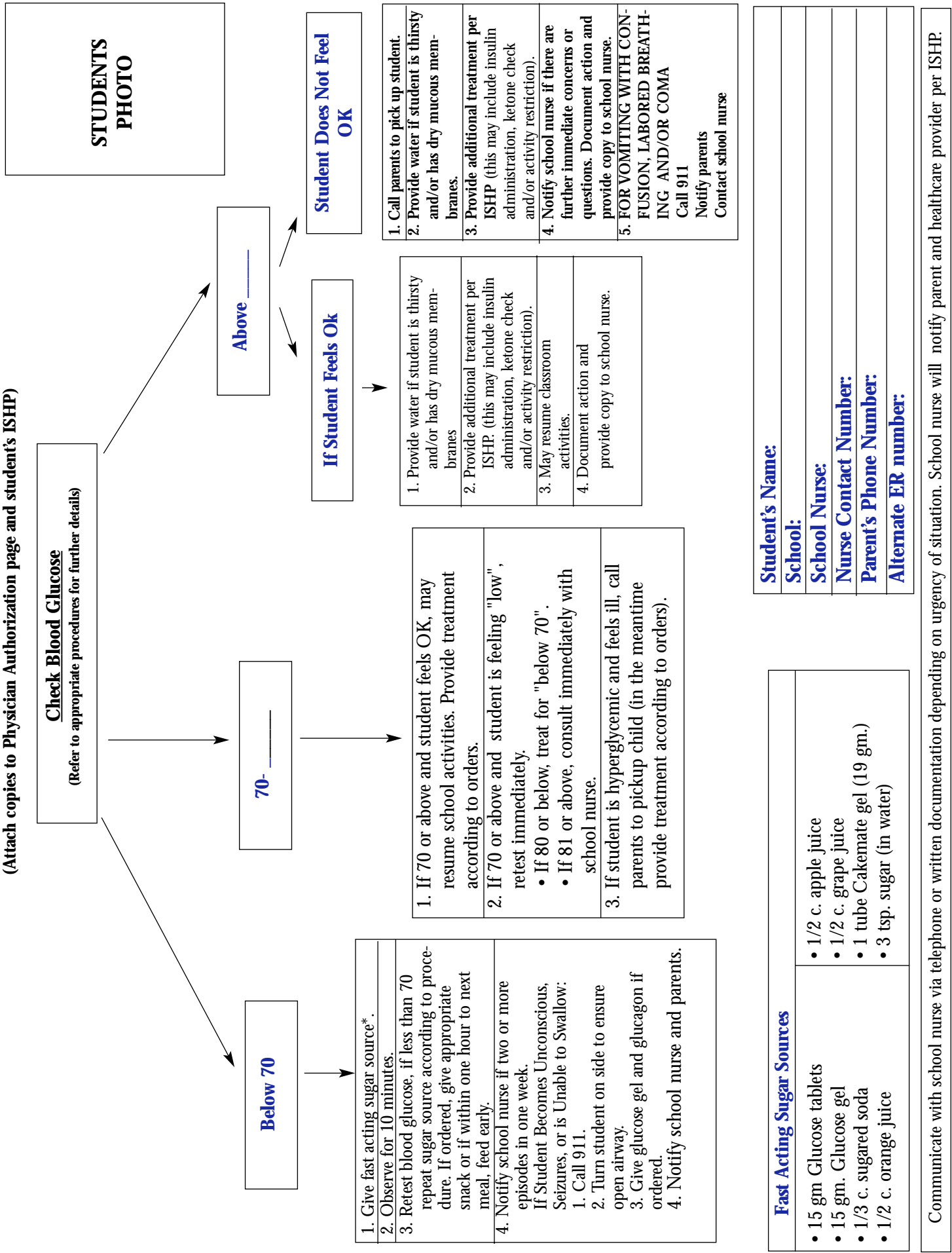
- 1) Blood Glucose Testing is performed at designated testing times or when symptoms of hypo/hyperglycemia occur (refer to specific procedure).
- 2) Regular monitoring of blood glucose levels contribute towards proper management of diabetes. This should be available to student in school whenever and wherever necessary.
- 3) Follow specific manufacturer's instructions for operating meter.
- 4) Blood glucose levels for people with diabetes range between 70-110 before a meal. Appropriate ranges for persons with diabetes vary depending on age and the ability to balance insulin, diet, and exercise and the physician's philosophy.
 - For students under 5 or 6 of age most blood glucose levels should be between 100 and 200. Expect some readings below 100 and some above 200. If more than 50% of the readings are above 200 or below 100, the management plan may need to be adjusted (depending on the prescribed regimen). Parents should be notified to contact their healthcare provider for a possible change in insulin dose.
 - For older and teenager students most blood glucose readings should be between 70 and 150. Expect some readings below 70 and some above 150. If more than 50% of the readings are below 70 or above 150 then the management plan may need to be adjusted (depending on the prescribed regimen). Parents should be notified to contact their healthcare provider for a possible change in insulin dose.
- 5) Most children will use glucose meters that require use of fingertips for glucose testing. However, some of the new meters allow testing on forearms. The lancet device used for forearm testing is not disposable; therefore the child may only use the forearm if they are independently able to use the lancing device.
- 6) Parent/careprovider to supply necessary equipment for performing procedures at school.

Procedure for Blood Glucose Testing

| Pupil: | DOB: | School: | Grade: |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Equipment and Supplies | 1. Alcohol prep pad 2. Finger lancing device* 3. Blood glucose testing meter such as Accucheck Advantage, Bayer Elite, Lifescan UltraOne Touch, Therasense Freestyle, etc. | | 4. Blood testing strips for specific electronic meter. Tissue or cotton balls and spot bandage. 5. Gloves 6. Log Book |
| Essential Steps | | Key Points & Precautions | |
| 1. Wash hands and area to be tested with soap and water. Put on gloves. Student's hands must be washed as well. This is sufficient for prepping the site, however, alcohol may be used for further prepping. (The site selected must be dry before pricking.) | | Alcohol may cause toughening of the skin or burning sensation. If moisture (water or alcohol) remains on the skin it may alter test results. | |
| 2. Place glucose testing strip into electronic meter according to manufacturer's instructions. | | | |
| 3. Prepare lancing device according to manufacturer's instructions. | | *If school personnel are performing the procedure then a disposable lancing device must be used. | |
| 4. Select a site. If using finger, use the top sides of fingertips. Hang the arm below the level of the heart for 30 seconds to increase blood flow. | | The tops of the fingertips may be more sensitive. Other sites can be used such as the forearm if approved by manufacturer | |
| 5. Puncture the site with the lancing device. Gently squeeze the finger in a downward motion to obtain a large enough drop of blood to cover the test strip 3/16" to 1/32" in diameter). | | | |
| 6. Place blood on testing strip and complete instructions according to manufacturer's instructions. | | Compress lanced area with tissue or cotton ball until bleeding stops or apply spot bandage. | |
| 7. Dispose of test strip and tissue or cotton ball in lined wastebasket. Dispose of lancing device in Sharps container. | | | |
| 8. Remove and dispose of gloves, wash hands. | | | |
| 9. Record results in Procedure Log. Refer to Section III, Records & Logs for samples of blood glucose logs. | | Refer to the "Algorithms for Blood Glucose Results" for management of specific blood glucose level. | |

Algorithms For Blood Glucose Results

(Attach copies to Physician Authorization page and student's ISHP)



**STUDENTS
PHOTO**

**Procedure for Mild or Moderate Low Blood Glucose
Hypoglycemia/Insulin Reaction**

| | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pupil: | DOB: | School: | Grade: |
| Equipment and Supplies | 1. Blood glucose meter kit 2. Fast acting carbohydrates, i.e.: apple juice, orange juice 3. Glucose tablets 4. Glucose gel such as Insta-Glucose, Monogel and Glutose | 5. Carb. and protein snack, i.e.: prepackaged crackers/cheese or peanut butter, 1/2 sandwich, 2 graham crackers with 1/2 cup milk, Nite Bite™, etc. | |
| Essential Steps | | Key Points & Precautions | |
| 1. Observe/Recognize signs/symptoms of low blood glucose; ask pupil to describe how he/she feels. (Pupil's known signs/symptoms are checked below). | | | |
| Mild Symptoms | | Moderate Symptoms | Key Points & Precautions |
| <input type="checkbox"/> Headache <input type="checkbox"/> Weakness, fatigue <input type="checkbox"/> Moist skin, sweating <input type="checkbox"/> Numbness of lips/tongue <input type="checkbox"/> Shakiness <input type="checkbox"/> Irritability <input type="checkbox"/> Pale skin <input type="checkbox"/> Blurred vision <input type="checkbox"/> Sudden hunger <input type="checkbox"/> Crying <input type="checkbox"/> Stomachache | | <input type="checkbox"/> Droopy eyelids, sleepy <input type="checkbox"/> Erratic behavior <input type="checkbox"/> Slurred speech <input type="checkbox"/> Loss of coordination <input type="checkbox"/> Confusion | Unable to swallow - Combative Uncooperative - Unconscious Seizure. Proceed immediately to Procedure for Severe Low Glucose. |
| 2. Test blood (if testing equipment is available), record results, and, if below 70, do as follows: <ul style="list-style-type: none"> (a) Treat with one (1) of the following fast acting carbohydrates: <ul style="list-style-type: none"> • 4 oz. (1/2 cup) apple juice or orange juice (or regular soda pop). • 15 gm glucose tablets (chewed thoroughly before swallowing). • Glucose gel (i.e.: 15 gm. tube Insta-Glucose, or 15 gm. Monogel or Glutose). • 1 tube gel Cakemate (19 gm., mini-purse size). (b) Observe for 10 minutes, then check for improvement: <ul style="list-style-type: none"> • Pupil states symptoms are gone and appears OK. • Blood sugar over 70 per pupil retest. (c) If no improvement, repeat Step 2, a and b (second attempt) except use the 15-30 gm. glucose tablets – or – glucose gel product, if available. – and – If still no improvement, repeat again (3rd attempt and if needed, 4th attempt). <ul style="list-style-type: none"> • If no improvement after third attempt, call parent and school nurse. • If no improvement after fourth attempt, call parent and paramedics. (d) When student is feeling better: <ul style="list-style-type: none"> • If ordered, provide extra carb. and protein snack if over 1 hour until lunch or snack time, or provide lunch or snack, whichever is due within the hour. • Resume classroom activities if fully recovered, or have health office call parent for assistance if not fully recovered. (e) Document care on procedure log, and notify parent | | | If moderate symptoms, provide immediate adult supervision. Treat "on the spot"; do not send elsewhere, and, if none of the listed fast acting carbohydrates, are available use 2 tsps. of sugar or honey, or 4 ounces of milk or fruit punch, etc. If in classroom and retest is needed, request health office assistance. – and – If pupil becomes unable to participate in care, proceed immediately to Emergency Procedure for Severe Blood Glucose. |
| 3. If 71 or above and feeling low/not well, repeat test to verify results <ul style="list-style-type: none"> • If 80 or less and still feeling low or not well, treat for Mild or Moderate Low Blood Glucose (Step 2, a – e, above). • If 81 or above and still feeling low or not well, consult immediately with school nurse • If 240 or above, see Procedure for High Blood Glucose | | | School nurse will advise regarding further care. |

Emergency Procedure for Severe Low Blood Glucose

Hypoglycemia/Insulin Reaction Glucose Gel Followed by Glucagon Injection

| Pupil: | DOB: | School: | Grade: |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------------------------------------------------|---------------------------------------------------------------|
| 1. Glucose gel 2. Glucagon kit | | 3. Regular (not diet) soda pop 4. Blood glucose meter kit | |
| Essential Steps | | | Key Points & Precautions |
| 1. Verify signs of severe low blood glucose: Unable to swallow - Unconsciousness Combative -Uncooperative - Seizures | | | Signs are so severe that pupil cannot participate in care. |
| 2. Place pupil on side - or - in upright position if restless/uncooperative, AND Have someone call paramedics, school nurse, and parent. | | | If seizure occurs, follow standard seizure procedure. |
| 3. Place one of the following in cheek pouch closest to ground and massage: • 15 gm. of glucose gel: ___ 15 gm tube Insta-Glucose - or - ___ 15 gm pkt. Monogel or Glutose | | | Maintain head position to one side for preventing aspiration. |
| 4. Give glucagon injection (use procedure below). | | | |
| 5. When pupil is able to swallow, repeat Step 3. - and - Give sips of regular soda pop (not diet) as tolerated until paramedics arrive. | | | Avoid orange juice. Glucagon can cause nausea/vomiting. |
| 6. When paramedics arrive , pupil will be transported for medical care. When transported , notify Authorized Health Care Provider. | | | |
| 7. Document on Procedure Log. | | | |

How To Prepare And Inject Glucagon

| | | | |
|------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------|--|
| 1. Glucagon kit (diluent in syringe and vial of glucagon powder) 2. Alcohol wipes and cotton ball | | 3. Bandage 4. Sharps container 5. Gloves (if indicated) | |
| Essential Steps | | Key Points & Precautions | |
| Prepare Glucagon syringe | | | |
| 1. Remove vial cap, clean vial top with alcohol (if time allows). Remove needle cover. | | | |
| 2. Inject contents of syringe into vial (held upright). | | | |
| 3. Swirl vial gently until dissolved/clear. | | | |
| 4. Hold vial upside down, and withdraw all solution. | | | |
| 5. Withdraw needle from vial, hold syringe upright, and remove air/bubbles from syringe, then, create dribble at needle tip. | | | |
| Administer Glucagon: | | | |
| 1. Expose injection site (upper, outer area of thigh, arm or buttock). | | | |
| 2. Hold syringe safely; use other hand to clean injection site with alcohol (if time allows). | | District policy may require gloves for injections. | |
| 3. Insert needle straight into muscle of buttock, arm or thigh and inject glucagon | | | |
| 4. Withdraw needle while pressing gently with alcohol wipe or cotton ball at injection site. | | | |
| 5. Massage injection site for 10 seconds; apply bandage if needed. | | | |
| 6. Put used syringe and vial in Sharps container. | | If glucagon is prepared and not used, it is only good for one month if kept refrigerated. | |

Emergency Procedure for Severe Low Blood Glucose
Hypoglycemia/Insulin Reaction
Glucagon Injection Followed By Glucose Gel When Able To Swallow

| | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------|
| Pupil: | DOB: | School: | Grade: |
| Equipment and Supplies | 1. Glucose gel 2. Glucagon kit | 3. Regular (not diet) soda pop 4. Blood glucose meter kit | |
| Essential Steps | | Key Points & Precautions | |
| 1. Verify signs of severe low blood glucose: Unable to swallow – Unconsciousness Combative – Uncooperative – Seizures | Signs are so severe that pupil cannot participate in care. | | |
| 2. Place pupil on side – or – in upright position if restless/uncooperative, AND Have someone call paramedics, school nurse, and parent. | If seizure occurs, follow standard seizure procedure. | | |
| 3. Give Glucagon injection (use procedure below). | | | |
| 4. When pupil is able to swallow, give one of the following : <ul style="list-style-type: none"> • 15 gms of glucose gel: ___ 15 gm tube Insta-Glucose – or – ___ 15 gm pkt. Monogel or Glutose - and - Give sips of regular soda pop (not diet) as tolerated until paramedics arrive. Avoid orange juice. Glucagon may cause nausea/vomiting | If able to swallow but not fully alert, position head to one side for preventing aspiration. | | |
| 5. When paramedics arrive , pupil will be transported for medical care. When transported , notify Authorized Health Care Provider. | | | |
| 6. Document on Procedure Log. | | | |

How To Prepare And Inject Glucagon

| | | |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------|
| Equipment and Supplies | 1. Glucagon kit (diluent in syringe and vial of glucagon powder) 2. Alcohol wipes | 3. Bandage 4. Sharps box |
| Essential Steps | | Key Points & Precautions |
| Prepare Glucagon syringe | | |
| 1. Remove vial cap, clean vial top with alcohol. Remove needle cover. | | |
| 2. Inject contents of syringe into vial (held upright). | | |
| 3. Swirl vial gently until dissolved/clear. | | |
| 4. Hold vial upside down, and withdraw all solution. | | |
| 5. Withdraw needle from vial, hold syringe upright, and remove air/bubbles from syringe -then- create dribble at needle tip | | |
| Administer Glucagon: | | |
| 1. Expose injection site (upper, outer area of thigh or arm). | | |
| 2. Hold syringe safely; use other hand to clean injection site with alcohol. (if time allows). | | |
| 3. "Pinch up" skin/muscle (still holding alcohol wipe). | | |
| 4. Insert needle straight into muscle of buttock, arm or thigh and inject glucagon. | | |
| 5. Withdraw needle while pressing gently with alcohol wipe or cotton ball at injection site. | | |
| 6. Massage injection site for 10 seconds; apply bandage if needed. | | |
| 7. Put used syringe and vial in Sharps container. | If glucagon is prepared and not used, it is only good for one month if kept refrigerated. | |

Emergency Procedure for Severe Low Blood Glucose
Hypoglycemia/Insulin Reaction
Glucose Gel Only

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------|---------------|
| Pupil: | DOB: | School: | Grade: |
| Equipment and Supplies | 1. Glucose gel 2. Regular (not diet) soda pop | 3. Blood glucose meter kit 4. Glove (if indicated) | |
| Essential Steps | | Key Points & Precautions | |
| 1. Verify signs of severe low blood glucose: Unable to swallow – Unconsciousness Combative – Uncooperative – Seizures. | | Signs are so severe that pupil is unable to participate in care. | |
| 2. Place pupil on side - or - in upright position if restless/uncooperative, AND <u>Have someone call paramedics, school nurse and parent.</u> | | If seizure occurs, follow standard seizure procedure. | |
| 3. Place one of the following in cheek pouch closest to ground and massage: • Glucose gel: __ 15 gm tube Insta-Glucose – or – __ 15 gm. Monogel or Glucose | | Maintain head position to one side prevent aspiration | |
| 4. When pupil is able to swallow, repeat Step 3, - and - Give sips of regular soda pop (not diet) as tolerated until paramedics arrive. | | | |
| 5. When paramedics arrive, pupil will be transported for medical care. When transported, notify Authorized Health Care Provider. | | Avoid orange juice. Glucagon can cause nausea/vomiting. | |
| 6. Document on Procedure Log. | | | |

Procedure for High Blood Glucose Hyperglycemia

| | | | |
|-------------------------------|-----------------------------------------------|-------------------------------------|---------------|
| Pupil: | DOB: | School: | Grade: |
| Equipment and Supplies | 1. Blood glucose meter kit 2. Water bottle | 3. Insulin supplies (if indicated). | |

| Essential Steps | Key Points & Precautions |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1. Test blood glucose per procedure. | |
| 2. Initiate care per Authorized Health Care Provider authorization consent page. This may include insulin administration and checking for ketones (refer to appropriate procedures) and possibly activity restriction (refer to Authorized Health Care Provider authorization/parent consent page, "Exercise"). | Exercising when ketones are present may elevate blood glucose levels even further. |
| 3. If student is thirsty or has dry mucous membranes, provide fluids as tolerated. | If student resumes classroom activities, he/she may use a water bottle in class for symptoms of thirst and/or dehydration. |
| 4. If pupil is feeling OK , resume classroom activities. If student does not feel well (nausea, lethargy, headache) then the parents should be called to take the child home. | Notify the school nurse so follow up care can be ensured. |
| 5. If pupil develops severe stomach pains, vomiting and/or rapid breathing, call paramedics, school nurse and parent immediately. | |
| 6. Document care on procedure log. | School nurse or parent will notify the healthcare provider. |

Standard Procedure for Testing Urine Ketones

| Essential Steps | Key Points & Precautions |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 1. Saturate the test strip with urine by one of the following: ___ Pupil to hold test strip in urine flow. ___ Pupil to urinate in cup/jar, then strip is dipped into urine. | If assisting the pupil, wear disposable gloves during this procedure. |
| 2. Wait for test strip to develop per directions on test strip bottle. | |
| 3. Compare color of strip to chart on bottle. Results will be read as negative, small, moderate, or large. • If results are moderate or large, call parent to take pupil home for observation and/or medical care. | |
| 4. Record results on Procedure Log. | |

Procedure for Blood Ketone Testing

| | | | |
|---------------|-------------|----------------|---------------|
| Pupil: | DOB: | School: | Grade: |
|---------------|-------------|----------------|---------------|

| | |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GENERAL INFORMATION | <ol style="list-style-type: none"> 1) Testing the blood for ketones is considered to be more accurate than urine testing for ketones. Blood ketone testing reflects time accuracy whereas urine ketones reflects a time delay. The monitoring of blood ketone levels can assist in proper management of diabetes. 2) Follow manufacturer's guidelines for ketone ranges (negative or "normal limits", moderate and large or "at risk for possible ketoacidosis"). |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| | | |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| EQUIPMENT AND SUPPLIES | <ul style="list-style-type: none"> • Alcohol prep pad • Finger lancing device* • Blood ketone testing meter such as Precision Xtra with strips • Blood testing strips for specific electronic meter | <ul style="list-style-type: none"> • Tissue or cotton balls • Gloves • Log Book • Spot bandage |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

Procedure

| ESSENTIAL STEPS | KEY POINTS AND PRECAUTIONS |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Wash hands with soap and water. Put gloves on. Student's hands must be washed as well. This is sufficient for prepping the site, however, alcohol may be used for further prepping. The site selected must be dry before pricking. | Alcohol may cause toughening of the skin or burning sensation. If moisture (water or alcohol) remains on the skin it may alter test results. |
| 2. Place ketone testing strip into electronic meter according to manufacturer's instructions. | |
| 3. Prepare lancing device according to manufacturer's instructions. | *If school personnel are performing the procedure then a disposable lancing device must be used. |
| 4. Select a site on the top sides of any fingertip. Hang the arm below the level of the heart for 30 seconds to increase blood flow. | The tops of the fingertips may be more sensitive. The sides of the fingers have less blood flow. |
| 5. Puncture the site with the lancing device. Gently squeeze the finger in a downward motion to obtain a large enough drop of blood to cover the test strip (3/16" to 1/32" in diameter). | |
| 6. Place blood onto testing strip and complete procedure according to manufacturer instructions. | Compress lanced area with tissue or cotton ball until bleeding stops or apply spot bandage. |
| 7. Dispose of test strip and tissue or cotton ball in lined wastebasket. Dispose of lancing device in Sharps container. | |
| 8. Remove and dispose of gloves, wash hands. | |
| 9. If results are small, notify school nurse and parent. If results are moderate or large, call parent to take pupil home for close observation and/or medical care; notify school nurse. | |
| 10. Record results in Diabetes Monitoring log. | Refer to Standard Procedure for Hyperglycemia for specific treatment. |

Insulin Administration General Information

- A. Insulin is a hormone constructed of proteins that is normally produced by the pancreas. Synthetically manufactured insulin is produced for the person with diabetes who lacks this hormone. Several days without insulin can cause a life-threatening condition of ketoacidosis, coma and eventually death.
- B. The number of insulin units to be given is ordered by the physician or nurse practitioner. The amount or dose of insulin will depend on several factors: body size, blood glucose levels, meal plan, and exercise. A sliding scale may be used, i.e. the number of insulin units to be given is based on the blood glucose reading (refer to Procedure for Blood Glucose Testing).
- C. Insulin can be affected by extremes in temperature, which can denature the protein and decrease or eliminate its effect. Insulin remains stable at temperatures between 40 – 75 degrees. Once insulin is opened, the date should be written on the vial. Opened insulin should be stored in the refrigerator and used for 1 month. Extra vials should be stored in the refrigerator to assure temperature consistency. Unopened vials that are stored properly are good until the expiration date. Refer to manufacturer's instructions to ensure proper storage.
- D. Insulin doses are measured in "units". There are 10 milliliters in one vial of insulin, which is equivalent to 1000 units. One unit of insulin can alter a blood glucose level therefore it **is imperative that the ordered dosage be EXACT!**
- E. Insulin injections are given subcutaneously (area between the skin and the muscle). Sites should be rotated to avoid scar tissue or fatty cell growth under the skin.
- F. School staff members (teachers, recess monitors, health aides, ancillary staff, bus drivers, substitutes, etc.) who are responsible for the student with diabetes need to be educated regarding hypo/hyperglycemia treatment. Hypoglycemia is most likely to occur at insulin peak action times (refer to "Insulin Action Times" handout).
- G. Regular or Humalog are short acting insulins and are used for meal coverage or "spot dosing" and correction doses (doses given in order to decrease an elevated blood glucose). If an extra dose of short acting insulin is given, the blood glucose should be checked approximately 30 minutes - 2 hours later with parent approval. Correction or spot doses should not be given closer than 2 hours apart.
- H. Insulin delivery methods include a syringe, an insulin pen, an insulin pump, or several tools that can be used to assist with injection and/or delivery (refer to the **Insulin Delivery Systems**, Section III, G). The steps in this procedure are written for syringe use however, various tools can be adapted into this procedure. Separate procedures have been written for the insulin pen and pump.
- I. **The nurse must be notified if additional medication is being used by the student.** Other medications and drugs can increase or decrease the effect of insulin. Insulin drug interactions can include:
- Metoprolol, propranolol, **hyperglycemia or hypoglycemia may occur.** Use together cautiously.
 - Alcohol, corticosteroids, dextrothyroxine, estrogens, glucagon, rifampin, thiazide, diuretics and thyroxine, decrease insulin response. Monitor blood glucose.
 - Anabolic steroids, clofibrate, guanethidine, alofenate, MAO inhibitors, phenylbutazone salicylates, mulfonamides, oral anticoagulants; **increase insulin response.** Monitor blood glucose.

In the event of a disaster, if a credentialed school nurse is not available, the administration of insulin by others would be considered prudent and permissible by law. It is strongly recommended that the parent/guardian/careproviders discuss their individual situation with school personnel so that guidelines and precautions can be addressed in advance (refer to Disaster Preparedness for Students with Diabetes, Section III, F). This procedure can be copied and placed in a baggie with the insulin supply for use during a disaster.

Procedure for Insulin Administration by Injection

| Pupil: | DOB: | School: | Grade: |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------|
| Equipment And Supplies | 1. Vials of insulin (extra 3-day supply for disaster preparedness) 2. Syringes with needles 3. Cotton balls | 4. Alcohol swabs 5. Sharps container (each school should have its own Sharps container) | |
| Essential | | Key Points & Precautions | |
| 1. Wash hands. | Implement Universal Precautions at all times. | | |
| 2. Assemble insulin(s), syringe, cotton ball, and alcohol. | | | |
| 3. If insulin is cold, warm in the palm of hand to room temperature. | Injecting cold insulin can cause pain and may affect absorption. | | |
| 4. If this is a new bottle of insulin, remove the flat, colored cap. Do not remove the rubber stopper or the metal band under the cap. | | | |
| 5. If NPH or Lente is used, it will require mixing. Gently roll the bottle between the palms or turn the bottle over from end to end a few times. Do not shake. If any clumps are visible do not use. | Shaking can cause the protein to denature and decrease the potency. Clumps are an indication that the protein has been denatured. | | |
| 6. Clean the rubber tops with alcohol and let dry for a few seconds. | | | |
| 7. Remove the cap from the syringe and place in a "clean field". (If only Humalog/Novolog or regular insulin is used then proceed to #8 and Skip #9). Fill the syringe with air equal to the number of units of long-acting insulin needed. Keep the bottle upright and inject air into the long-acting insulin bottle. Pull empty syringe out of the bottle. If only long-acting insulin is given, skip #8 and proceed to #9. | Air is always injected into the longer acting insulin first. Air is always injected to prevent creating a vacuum. | | |
| 8. Inject air into Regular or Humalog/Novolog insulin bottle and with syringe remaining in bottle, invert and pull plunger back beyond the number of units desired. Keeping the syringe in an upright-position, clear any air by pulling plunger back and tapping syringe to raise air bubbles to the top. Push plunger to desired amount of units, ensuring that no air bubbles remain and withdraw the syringe. | Regular/Humalog/Novolog insulin is always drawn up first. This avoids potential contamination of long acting insulin into short acting (which could delay the action time of regular insulin). Air bubbles in the syringe can alter the desired dose. | | |
| 9. Inject needle into long-acting insulin bottle and withdraw exact number of units to be given. Total number of units must equal the Regular/Humalog/Novolog unit dose plus the long-acting insulin dose. Example: 5u Regular, 10u NPH equals 15 total units. | If there is any air in the syringe after withdrawing the needle, attempt to clear. If any insulin is inadvertently pushed out, the entire dose should be discarded and redrawn. Avoid pushing the plunger up in the long-acting bottle to rid air. This could inadvertently push regular plunger up into the long-acting bottle and alter the entire dose. | | |
| 10. Prop syringe on the cap in a "clean field" Select the site to be used and prep with alcohol and let dry. If area is dirty, then wash with soap and water and dry. | Any subcutaneous tissue can be used for injection sites. The best absorption is in the lower abdomen, followed by the upper, outer arms, tops of the thighs and lastly the upper areas of the buttocks. Exercise and heat (like the warmth from a jacuzzi) also hastens absorption of an injected area. | | |
| 11. Pinch up skin and tissue with one hand. With the other hand, hold the syringe, with the eye of the needle pointing upward, like a pencil. Dart the needle into the "soft pocket" (area that lies directly in front or in back of the pinched up skin) at a 90 degree angle. Inject insulin in one to five seconds. Release pinched up skin and remove needle while applying gentle pressure at the injection site for 10 - 15 seconds. This will help to prevent leakage from the site. | Take care to avoid injecting into the muscle, as it will hastens absorption. Do not massage the area as it irritates the tissue and hastens absorption. | | |
| 12. Dispose of syringe with needle intact into a sharps container. | | | |
| 13. Document on a Procedure log. | | | |

Insulin Pen Delivery Systems

General Information

General Information

- A. An insulin pen is an insulin delivery system that has the visual appearance of a writing pen; it consists of a cartridge holder (insulin must be purchased in prescribed cartridges), a piston rod (this is a screw mechanism that adjusts the desired dose), a dose indicator window (dose is indicated by visual numbers), a push button (this delivers the insulin), and a pen encasement. The purpose of an insulin pen is to provide insulin with a convenient and accurate device at school. Insulin pens will assist in preventing dose errors that may occur with a syringe and vial.
- B. Some pens can be purchased with the insulin cartridge already in place (these are considered "disposable pens") and other pens require "loading" of a specific insulin cartridge.
- C. Storage of cartridges may or may not require refrigeration. Specific manufacturer's instructions regarding handling and storage of insulin cartridges must be followed.

There are multiple companies that manufacture insulin pens. A specific brand of insulin cartridge is prescribed by the student's Authorized Health Care Provider. Specific manufacturer's instructions must be followed. The following companies currently manufacture insulin pens:

- 1. B-D Pen: For use with all brands of 150-ml insulin cartridges; delivers 1 to 30 units in 1-unit increments; works with B-D Ultra-Fine Original (29G x 1/2") or B-D Ultra-Fine III (31G x 5/16") pen needles.
- 2. B-D Pen Mini: Same as above with the exception that dosage increments are delivered in 0.5 to 1.5 units in 1/2 unit increments.
- 3. Disetronic Pen: "Open system" allows use on any type, manufacturer, and mixture of insulin. Uses disposable 315 unit (3.15 ml) plastic cartridges. Delivers insulin in 1-unit increments from 1 to 80 units per injection using standard 30G needles.
- 4. Humalog Pen: Pre-filled, disposable insulin delivery device that holds 3.0 ml (300 units) of rapid acting insulin. No refrigeration needed after the first use. Humulin Pen: Same as Humalog Pen but contains insulin with different duration of action times.
- 5. NovoPen 1.5: Delivers insulin in 1-unit increments up to 40 units; designed for use with Novolin PenFill 1.5 ml cartridge and NovoFine 30 disposable needle.
- 6. Autopen AN 3100: Has a release button extension that aids in the automatic delivery of insulin from any 1.5 ml glass insulin cartridge. This model delivers insulin in 1-unit increments.

Procedure for Insulin Pen Delivery System

| Pupil: | DOB: | School: | Grade: |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------|
| Equipment And Supplies | 1. Insulin pen 2. Insulin cartridge 3. Pen needles | 4. Cotton balls 5. Alcohol/swabs 6. Sharps container | |
| Essential Steps | | Key Points & Precautions | |
| 1. Always obtain a blood glucose reading prior to insulin administration. | This will help determine amount of insulin to be given. | | |
| 2. Determine insulin dose with Authorized Health Care Provider's orders. | This will be either a standard noon dose, based on the blood glucose reading or a "correction dose" (spot dose) of insulin for hyperglycemia. | | |
| 3. Assemble insulin pen, pen needle and alcohol. | | | |
| 4. Check insulin type/brand. This must match Authorized Health Care Provider's orders. | | | |
| 5. Check the level of insulin remaining in the insulin cartridge. | | | |
| 6. Attach new needle. Remove outer plastic cap and plastic needle cap. Place outer needle cap on a flat surface with open end facing up. | Cartridges are made for multiple doses. Ensure that enough insulin remains in the cartridge for accurate dosing. This will assist in needle disposal after insulin is given. | | |
| 7. Dial in two units of insulin to perform an "air shot." Insulin should appear at needle tip. If it does not, repeat procedure. | | | |
| 8. Dial in prescribed dose. | Change in temperatures can cause air intake. This procedure ensures that any accumulated air will be released, thereby ensuring accurate insulin dosage. | | |
| 9. Cleanse skin with alcohol and allow to dry before injecting. | | | |
| 10. Pinch up the skin at selected area and dart the needle into the soft pocket at a 90 degree angle. | | | |
| 11. Inject insulin at a steady rate. | The soft pocket lies directly in front of or in back of the pinched up skin. | | |
| 12. Count slowly to three and then remove the needle. | | | |
| 13. Grasping the pen, place the needle into plastic needle cap that was left upright on a flat surface. Unscrew the needle tip and carefully discard into a sharps container. | Some pen manufacturers require a longer count. Do not lift the cap up with fingers to cover needle tip. Leave cap on the counter and use the pen to place the needle into the cap to avoid possibility of finger stick injury. The needle must be changed after each injection, as leaving the pen needle attached leaves an OPEN passageway into the insulin and contamination may occur. | | |
| 14. Document on Procedure Log. | | | |

Pump Skills Checklist

This form is to be completed by the school nurse with input from the parent/guardian/careprovider. The school nurse must directly assess specific skills for competency if independent performance is desired. Document student competency on skills, which are in accordance with standard procedure, on the ISHP.

| Pupil: | DOB: | School: | Grade: |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------|--------|
| Pump skill: | Requires Supervision | Independently Performs | |
| 1. Appropriately counts carbohydrates. If supervision is required the parents are requested to provide calculations. | | | |
| 2. Calculates appropriate correction dose based on Authorized Health Care Provider's orders. | | | |
| 3. Calculates total dose based on Authorized Health Care Provider's orders for carbohydrate consumption and correction dose (refer to Authorized Health Care Provider Authorization page). | | | |
| 4. Programs appropriate bolus. | | | |
| 5. Adjusts temporary rate for exercise. If supervision is required then parents are requested to pre-program a basal profile to account for scheduled exercise OR extra carbohydrates can be provided as detailed in the ISHP. | | | |
| 6. Disconnects & reconnects tubing. If supervision is required then it is not recommended that tubing be disconnected at school. | | | |
| 7. Inserts new infusion set. If supervision required then parents are requested to provide this service or an emergency back-up plan for insulin administration is recommended. | | | |
| 8. Uses Universal Precautions for site insertion. | | | |
| 9. Fills reservoir and primes tubing. If supervision required then parents are requested to be responsible for filling and priming. | | | |
| 10. Trouble shoots alarms appropriately. Child to report any alarm to teacher /school staff. | | | |
| 11. Appropriately identifies high & low blood glucose levels. | | | |

Insulin Pump Therapy

Student Independent Performance

| Pupil: | DOB: | School: | Grade: |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|
| General Information | <p>A. Insulin Pump Therapy is also referred to as Continuous Subcutaneous Insulin Infusion (CSII). The pump is worn outside the body and is about the size and weight of a pager. It holds a reservoir of insulin inside the pump and is programmed to deliver the insulin through a thin plastic tube called an infusion set. The infusion set is inserted via a needle that is covered by a cannula just below the skin. Once inserted, the needle is removed and the cannula stays in place for two to three days. When it is time to change the infusion set, a new infusion set is inserted into a different site.</p> <p>B. The goal of Insulin Pump Therapy is to achieve near normal blood glucose levels over 24 hours per day. The use of CSII has been shown to improve growth in children, decrease the incidence of hypoglycemia, and decrease the incidence of long-term diabetes complications.</p> <p>C. The advantages of CSII are that it affords more flexibility of life-style with less variability of insulin absorption, more precise insulin administration matched with food intake and activity levels, and overall close attention to diabetes management.</p> <p>D. The pump uses short acting insulin as opposed to conventional injections, which combine short and long-acting insulin.</p> <p>E. Insulin Pump Therapy combines a continuous basal of insulin for 24 hours and a bolus dose for meal or snack times and times of high blood glucose.</p> <p style="margin-left: 20px;">Basal rate: amount of insulin required when no food is eaten; a pre-programmed feature measured in units per hour (U/H); can be altered based on the pumper's daily needs; can be temporarily changed for alteration in schedule, activity, illness or food.</p> <p style="margin-left: 20px;">Bolus: when the pump is programmed to give a dose of insulin for meals, snacks and/or for correction of elevated blood glucose.</p> <p>F. The specific pump manufacturer instructions must be followed. Manuals, booklets, and videos are usually available free of charge by calling the number listed on the back of the pump.</p> <p>G. If the supply of insulin is interrupted due to mechanical pump failure, dislodgment of the cannula, accidental severing of the tubing, or clogged or obstructed tubing, the blood glucose level can rise rapidly. In case one of these incidents should occur, it is necessary for extra supplies to be kept at school to prevent or limit the subsequent hyperglycemia and possible ketoacidosis (can occur in as little as 3 hours).</p> <p>H. The pump can be disconnected using a quick release set. This is usually done during water activities or contact sports.</p> <p>I. A 3x5 card with the student's name, pump model and serial number, and the pump manufacturer's help line phone number should be readily available in the health office for any problems that might occur.</p> <p>J. A wallet sized programming card and an alarm card or manufacturer's instructions should be available in the health office for reference.</p> | | |

Insulin Pump Therapy
Student Independent Performance (Continued)

| Pupil: | DOB: | School: | Grade: |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------|
| General Information (Cont.) | <p>K. The school nurse needs to ensure that the actions listed below will occur. These actions are listed on the Insulin Pump Contract (refer to "Contracts" section). This contract can be signed by the student and parent/guardian to assist in ensuring these responsibilities.</p> <ol style="list-style-type: none"> 1. The student, parent/careprovider will be responsible for proper needle/catheter site preparation and insertion. 2. The student will be responsible for programming the pump functions. 3. The student agrees to immediately report to appropriate school personnel any pump malfunctions (dead batteries, high-pressure alarm/no delivery, etc.). 4. The student will be responsible for delivering the appropriate insulin amount based on blood glucose testing values, anticipated exercise and planned food consumption. 5. The student/parent will take responsibility for taking care of any skin site problems (bleeding, tenderness, itching, oozing, etc.). If the tubing becomes dislodged at school the student will report immediately to the school office and insert a new set. 6. The student will use universal precautions when discarding infusion sets, and needles. Needles will be placed in a sharps container. Infusion sets can be placed in a zip-loc baggie and discarded in a lined wastebasket. 7. Student will be responsible for notifying parent(s)/careprovider of any pump incidents. 8. The student will be responsible for ensuring pump/tubing safety during physical activities. If the student chooses to use a quick-release set during activities, he/she will ensure that normal blood glucose (euglycemia) is maintained as much as possible (checking blood glucose before, during and after activities and taking extra carbohydrates as needed). | | |
| Equipment & Supplies | <ol style="list-style-type: none"> 1. Infusion set and reservoir 2. Tape to secure infusion set 3. Items needed to prep skin site (alcohol swabs, betadine, etc.) 4. Pump programming instructions and alarm card 5. Insulin, and syringe (in case of pump malfunction) | | <ol style="list-style-type: none"> 6. Extra batteries 7. Sof-serter |
| Procedure | <p>The procedure for inserting an infusion set and operating a pump will be independently performed by the student in accordance with the actions delineated under "General Information". The school nurse can assist with trouble shooting the following situations:</p> | | |

Procedures for Hyperglycemia with Pump Therapy

| Essential Steps | Key Points & Precautions |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Check site for leakage, cannula dislodgement, redness and/or tenderness. If any of these are present, have student change the site immediately. | Student must assemble equipment, prime tubing, prep the insertion site, and insert the infusion set using an insertion tool. The cannula can be inserted using an insertion tool. This minimizes the chances of improper insertion. Some pump wearers use an infusion set (Silhouette or Tender Twos) that is inserted at an angle with a longer cannula. This is used for those who have less body fat. The Sof-serter cannot be used with these sets. Student to dispose of the insertion needle in a Sharps container. |
| 2. Follow Procedure for High Blood Glucose, Hyperglycemia. | Student may need assistance. |
| 3. Student should check blood glucose 30 minutes - 2 hours after inserting a new infusion set and/or any correction bolus to ensure that blood glucose is responding to insulin. | It may be necessary to continue checking blood glucose levels periodically to prevent potential hypoglycemia. |

Insulin Pump Therapy
Student Independent Performance (Continued)

| | | | |
|--------|------|---------|--------|
| Pupil: | DOB: | School: | Grade: |
|--------|------|---------|--------|

Procedure for Hypoglycemia with Pump Therapy

| Essential Steps | Key Points & Precautions |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Follow Procedure for Low Blood Glucose. The student should be knowledgeable regarding what actions to take during exercise. | Student may need assistance. General staff training is necessary for recognition of signs and symptoms and obtaining assistance for student. The student should be knowledgeable regarding what actions to take during exercise. The pump can be programmed to “suspend” function during exercise so hypoglycemia can be avoided or extra carbohydrates can be consumed for every 30 minutes of exercise. |
| 2. If problems continue notify the school nurse. | School nurse will notify parents and confer with Authorized Health Care Provider. |

Procedure for Pump Alarms

| Essential Steps | Key Points & Precautions |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Trouble shoot alarms | Follow manufacturer’s instructions for alarm indication. Student must be knowledgeable regarding pump alarms. A reference card can assist with troubleshooting steps or the manufacturer’s 800 number can be called (listed on the back of the pump). |
| a. LOW BATTERY: | Student to insert new batteries according to instructions. |
| b. NO DELIVERY | Check reservoir; student to refill if it is empty. Cannula may be obstructed or kinked; student must insert new infusion set. |
| 2. If student is unable to restart pump function, parent and school nurse must be notified immediately. | An injection of short acting insulin may be ordered. |
| 3. Parent/careprovider may choose to take student home for further monitoring. If student remains in school, the school nurse will contact the healthcare provider for further instructions. | |
| 4. Follow Procedure for High Blood Glucose, Hyperglycemia. | |
| 5. Document any incidents on procedure log. | |

Insulin Pump Therapy Student Requiring Supervision

| Pupil: | DOB: | School: | Grade: |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|
| General Information | <p>A. Insulin Pump Therapy is also referred to as Continuous Subcutaneous Insulin Infusion (CSII). The pump is worn outside the body and is about the size and weight of a pager. It holds a reservoir of insulin inside the pump and is programmed to deliver the insulin through a thin plastic tube called an infusion set. The infusion set is inserted via a needle that is covered by a cannula just below the skin. Once inserted, the needle is removed and the cannula stays in place for two to three days. When it is time to change the infusion set, a new infusion set is inserted into a different site.</p> <p>B. The goal of Insulin Pump Therapy is to achieve near normal blood glucose levels over 24 hours per day. The use of CSII has been shown to improve growth in children, decrease the incidence of hypoglycemia, and decrease the incidence of long-term diabetes complications.</p> <p>C. The advantages of CSII are that it affords more flexibility of life-style with less variability of insulin absorption, more precise insulin administration matched with food intake and activity levels, and overall close attention to diabetes management.</p> <p>D. The pump uses short acting insulin as opposed to conventional injections, which combine short and long-acting insulin.</p> <p>E. Insulin Pump Therapy combines a continuous basal of insulin for 24 hours and a bolus dose for meal or snack times and times of high blood glucose. Basal rate: amount of insulin required when no food is eaten; a pre-programmed feature measured in units per hour (U/H); can be altered based on the pumper's daily needs; can be temporarily changed for alteration in schedule, activity, illness or food. Bolus: when the pump is programmed to give a dose of insulin for meals, snacks and/or for correction of elevated blood glucose.</p> <p>F. The specific pump manufacturer instructions must be followed. Manuals, booklets, and videos are usually available free of charge by calling the number listed on the back of the pump.</p> <p>G. If the supply of insulin is interrupted due to mechanical pump failure, dislodgment of the cannula, accidental severing of the tubing, or clogged or obstructed tubing, the blood glucose level can rise rapidly. In case one of these incidents should occur, it is necessary for extra supplies to be kept at school to prevent or limit the subsequent hyperglycemia and possible ketoacidosis (can occur in as little as 3 hours).</p> <p>H. The pump can be disconnected using a quick release set. This is usually done during water activities or contact sports.</p> <p>I. A 3x5 card with the student's name, pump model and serial number, and the pump manufacturer's help line phone number should be readily available in the health office for any problems that might occur.</p> <p>J. A wallet sized programming card and an alarm card or manufacturer's instructions should be available in the health office for reference.</p> | | |

Insulin Pump Therapy
Student Requiring Supervision (Cont.)

| Pupil: | DOB: | School: | Grade: |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------|
| General Information (Continued) | <p>K. The school nurse needs to ensure that the actions listed below will occur as delineated:</p> <p>Parent Responsibilities</p> <ol style="list-style-type: none"> 1. Check site, ensuring tubing patency and checking insulin reservoir prior to student attending school each day. 2. Programming pump functions that include basal rate, alternate basal rates, square wave boluses, and/or temporary basal rates. 3. Reinserting a new infusion set if any skin site problems (bleeding, tenderness, itching, oozing, etc.) occur and abide by universal precautions when discarding infusion sets, and needles at school (needles will be placed in a Sharps container; infusion sets can be placed in a zip-loc baggie and discarded in a lined wastebasket). 4. Provide emergency numbers for cell phone or pager for potential pump alarms, cannula reinsertion or clogging, and/or accidental severing of the tubing. 5. Calculate the number of carbohydrates the child will be receiving for snack and/or school lunch (school food services director can provide menu breakdowns) or pre-packed lunch. This will be written down on the School-Home Diabetes Monitoring Log for Insulin Pump (refer to Records & Logs) and sent daily to the school nurse. <p>Student Responsibilities</p> <ol style="list-style-type: none"> 6. Report to appropriate school personnel any pump incidents such as low battery alarm, no delivery alarm, accidental severing or dislodgment of tubing, etc. | | |
| Equipment & Supplies | <ol style="list-style-type: none"> 1. Infusion set and reservoir 2. Tape to secure infusion set 3. Items needed to prep skin site (alcohol swabs, betadine, etc.) 4. Pump programming instructions and alarm card 5. Insulin and syringe (in case of pump malfunction) | | <ol style="list-style-type: none"> 6. Extra batteries 7. Sof-serter |
| Procedure | <p>Operating the pump boluses will be done either by the licensed nurse or by the student with a level of observation to be determined in accordance with state regulations. The nurse will follow manufacturer's instructions for pump operation.</p> | | |

Procedure for Hyperglycemia with Pump Therapy

| Essential Steps | Key Points & Precautions |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Check site for leakage, cannula dislodgement, redness, and/or tenderness. If any of these are present, call parents to change the infusion set immediately. | <p>Redness and/or tenderness at the site may indicate obstruction. The blood glucose can rise quickly since the delivery of short acting insulin has been interrupted and there is no long acting insulin in the body. If parents are unavailable then a back up plan for insulin administration must be provided. The school nurse can contact the Authorized Health Care Provider for insulin administration instructions.</p> <p>Blood glucose should be checked 30 minutes -2 hours after a correction dose to ensure that the blood glucose is responding to insulin. It may be necessary to continue checking blood glucose levels periodically to prevent potential hypoglycemia.</p> |
| 2. Parents may program a bolus to correct the hyperglycemia. | |
| 3. Follow Procedure for High Blood Glucose Hyperglycemia. | |

Insulin Pump Therapy
Student Requiring Supervision (Cont.)

| | | | |
|---------------|-------------|----------------|---------------|
| Pupil: | DOB: | School: | Grade: |
|---------------|-------------|----------------|---------------|

Procedure for Hypoglycemia with Pump Therapy

| Essential Steps | Key Points & Precautions |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Follow Procedure for Low Blood Glucose. | Hypoglycemia cannot always be avoided although the parent/careprovider should be knowledgeable regarding actions to prevent hypoglycemia during planned exercise. If vigorous exercise is anticipated the parent may pre-program a lower basal rate profile to avoid hypoglycemia. Another alternative is for the child to consume extra carbohydrates before, during and/or after exercise. Accommodations must be addressed in the ISHP. |
| 2. If problems continue, notify the school nurse. | School nurse will notify parents and confer with Authorized Health Care Provider. |

Procedure for Pump Alarms

| Essential Steps | Key Points & Precautions |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Troubleshoot Alarm. | Follow manufacturer's instructions for alarm indication. A reference card can assist with troubleshooting steps or call the manufacturers 800 number (listed on the back of the pump). |
| A. LOW BATTERY | Insert new batteries according to instructions. |
| B. NO DELIVERY | Check insulin reservoir; if it is empty call parents to refill. Cannula may be obstructed or kinked; call parents for insertion of new infusion set. |
| 2. If unable to troubleshoot pump call school nurse so student can be monitored closely and receive appropriate medical care. | School nurse will notify parents and contact Authorized Health Care Provider for further orders. An injection of short acting insulin may be ordered. |
| 3. Follow Procedure for High Blood Glucose, Hyperglycemia. | Student may need assistance. |
| 4. Document any incidents on Procedure Log. | Keep parents informed of any issues at school. |

Disaster Preparedness for Students with Diabetes

General Information

- A. It is most likely that even with a significant earthquake students will be safe at school. However, downed power lines, emergency vehicles, etc., may make it difficult or unsafe for them to be allowed to leave their location. In preparation for an earthquake, school districts should secure enough emergency food and medical supplies for 72 hours.
- B. If a credentialed school nurse is not available during a disaster, diabetes care (including insulin administration) given by any school personnel should be considered prudent and permissible by law due to the emergency nature of the situation. In addition, parents may choose to train a responsible friend or sibling to assist during a disaster.
- C. School personnel are to follow the procedures in the student's ISHP. Special adjustments in the daily insulin dose may be needed as well as nutrition accommodations.
- D. Recommendations for Insulin Dosage
 1. If insulin is available but there is a limited food supply then decrease their usual dose of NPH, Lente or Ultralente by 20%-30% for breakfast and evening (dinner or bedtime). Regular or Humalog should not be given.*
 2. If the food supply meets the needs of the student's regular meal plan, decrease the NPH, Lente or Ultralente for breakfast and evening (dinner or bedtime) by 10% and decrease the Regular or Humalog before breakfast and before evening meal by 25%.*
 3. Follow Authorized Health Care Provider's instructions if different from above.
- E. Nutrition Guidelines
 1. A specific meal plan regarding the amount of food and/or number of meals and snacks and the timing of meals and snacks should be included with the emergency food supply.
 2. If there is no insulin available during the disaster then sugar-free fluids should be encouraged as well as a diet consisting of fats and proteins (such as nuts); avoid carbohydrates, as this will significantly elevate the blood sugar without insulin.
 3. If possible, include a carbohydrate food and a protein food at each meal and bedtime.
 4. If protein foods are not available, then offer carbohydrate foods every 2-3 hours during the day.

** Rationale: hypoglycemia will be less likely to occur with these lower insulin doses and mild hyperglycemia one to three days is acceptable.*

Disaster Preparedness for Students with Diabetes

General Information (continued)

5. If the child is required to spend the night at school, the child should be given an appropriate snack or a bedtime snack bar, such as Nite-bite™.

6. Examples for food supply:

Carbohydrate Foods:

Shelf/boxed milk

Canned milk

Carnation Instant Breakfast

Rice cakes

Protein Foods:

Small jars of peanut butter

Pull top cans of chicken or tuna

Pull top cans of Vienna Sausage

Canned nuts

Additional fluids:

Water bottles

Canned juice

Combination Foods:

Granola bars

Beef Jerky

Peanut butter/cracker pkg.

Pull top canned fruit Cheese/cracker packages

Pull top cans of pork-n-beans

Nite-bite™ or other types of nutrition bars

- F. The disaster supplies can be assembled, labeled as “Diabetes Emergency Supply” and stored in the health office so rotation of the insulin (at least every 6 months) and Glucagon (check expiration date) can be ensured. All supplies must be kept in a cool location or at room temperature to ensure proper function. Insulin and Glucagon are hormones, which can be denatured by extremes in temperature. Heat can cause insulin to “clump” or form crystals. Examine insulin for clumps or crystals prior to administering (denatured insulin will not cause harm, it will not be as effective, i.e. it loses its potency). This kit may be the same one used by the student on a regular basis or it can be designated specifically for disaster. The diabetes food supply may be included in this kit or stored separately.
- G. Recommendations for insulin dosage during a disaster should be reviewed with the Authorized Health Care Provider as a different regimen may be prescribed for disaster situations (refer to Authorized Health Care Provider Authorization for Insulin Dose during a disaster).
- H. This disaster plan must be included in the Individualized School HealthCare Plan.

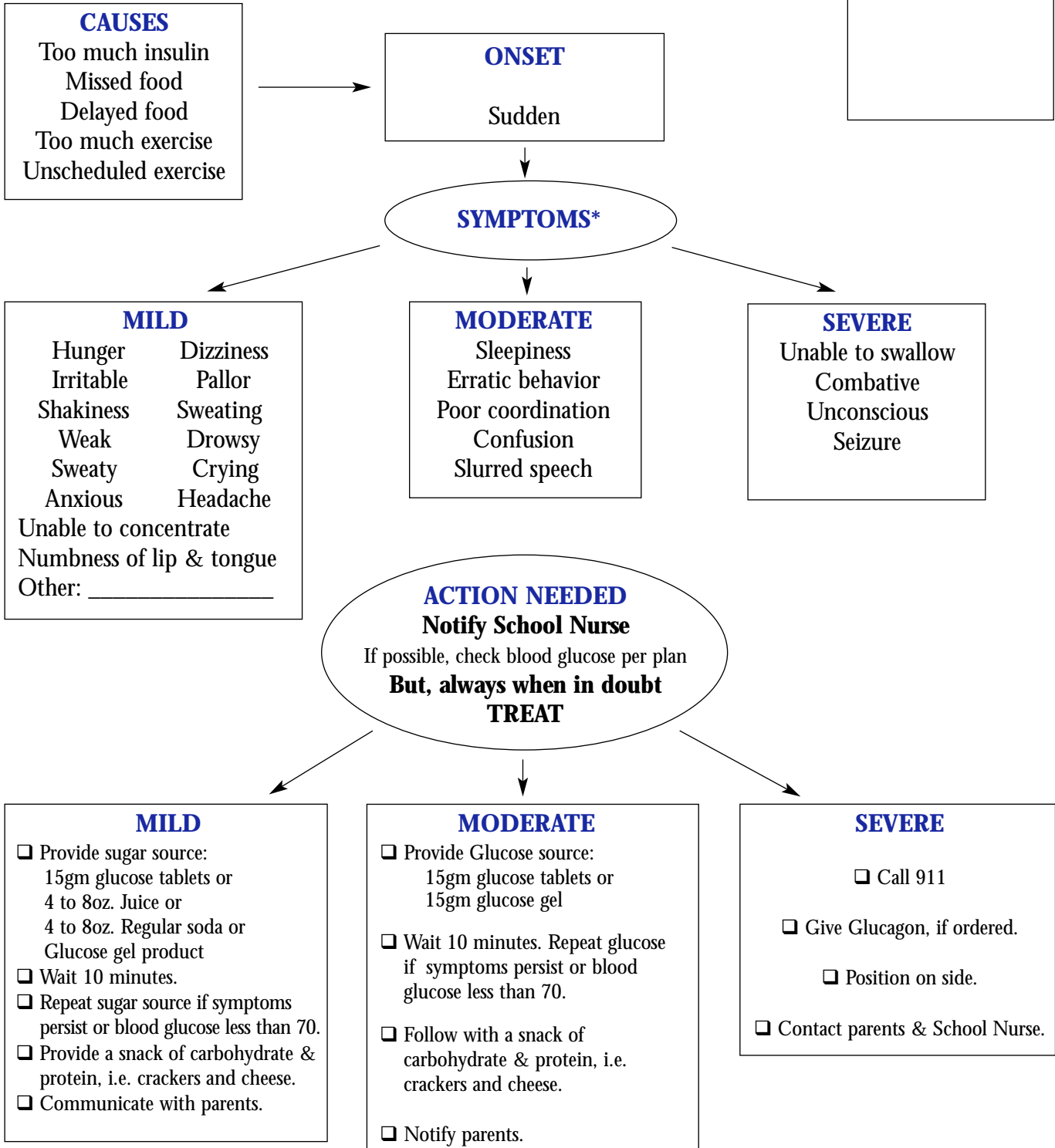
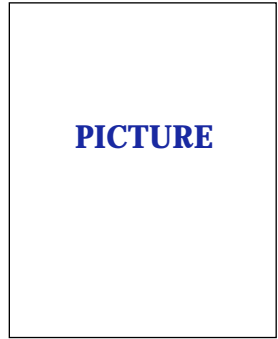
LOW BLOOD GLUCOSE TREATMENT FOR SCHOOL

(Complete and provide copies to appropriate school staff)

NAME: _____

GRADE/TEACHER: _____

DATE: _____



*Never send a child with suspected low blood sugar anywhere alone

School Name: _____

Adapted from "Washington State Task Force for Students with Diabetes" Manual, 1999

Nurse Contract Number: _____

HIGH BLOOD GLUCOSE TREATMENT FOR SCHOOL

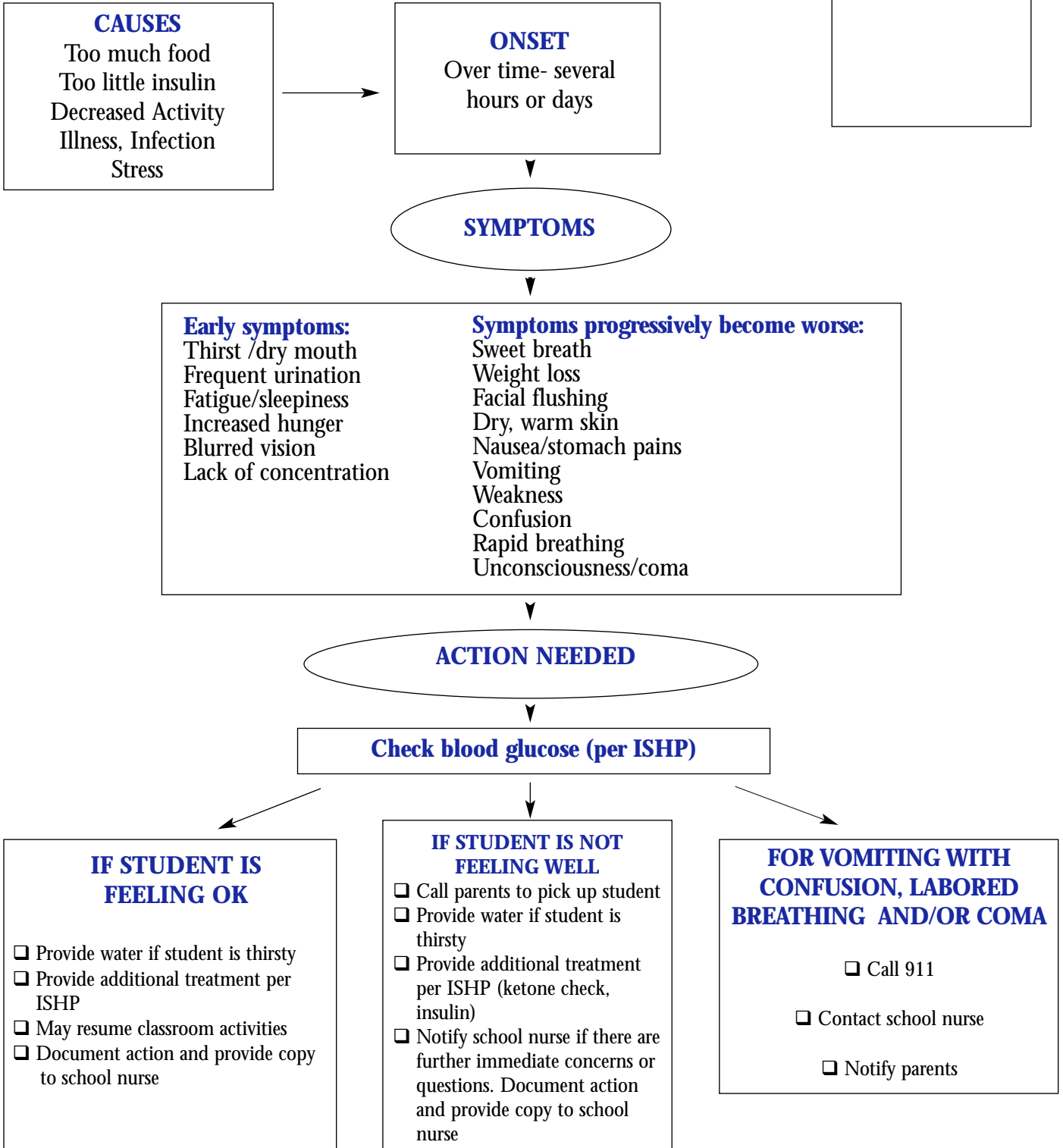
(Complete and provide copies to appropriate school staff)

NAME: _____

GRADE/TEACHER: _____

DATE: _____

PICTURE



School Name: _____

Nurse Contract Number: _____

Adapted from Manual developed by "Washington State Task Force for Students with Diabetes"

Outline for the Level of Care Needed to Perform Diabetes Procedures In School

| | Procedure | Who Can Provide Care | Location |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| I. | <p>INSULIN INJECTION Injections are given prior to meal(s) with Authorized Health Care Provider authorization and parent consent as outlined in the student's ISHP.</p> <p>A. SYRINGE</p> <ol style="list-style-type: none"> 1. Drawing up insulin in a syringe, validating correct dosage and administering injection. | | Can occur at any pre-approved location as long as arrangements for Sharps disposal are made (must comply with OSHA standards). |
| | <ol style="list-style-type: none"> 2. Pre-filling and labeling insulin syringe for student administration. | | |
| | <ol style="list-style-type: none"> 3. Observation of task completion. | | |
| | <p>B. PEN</p> <ol style="list-style-type: none"> 1. Loading cartridge, dialing correct dose, administering injection. | | |
| | <ol style="list-style-type: none"> 2. Verifying number on an insulin pen. 3. Observation of task completion. | | |
| | <p>C. PUMP</p> <ol style="list-style-type: none"> 1. Programming pump functions. 2. Observation of task completion. 3. Troubleshooting pump. | | |
| | <ol style="list-style-type: none"> 4. Checking site for leakage, cannula dislodgement, redness, and/or tenderness. | | |

Outline for the Level of Care Needed to Perform Diabetes Procedures In School

| Procedure | | Who Can Provide Care Complete in accordance with State laws | Location |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| II. | LOW BLOOD GLUCOSE (HYPOGLYCEMIA) A. Treatment of hypoglycemia | | Treatment must be given "on-the-spot" (glucose source should be on or with person). |
| | B. Glucagon Administration | | |
| III. | HIGH BLOOD GLUCOSE (HYPERGLYCEMIA) This includes the provision of extra fluids and testing for ketones. | | Classroom (if appropriate), health office, designated bathroom, or other areas as appropriate. |
| IV. | BLOOD GLUCOSE TESTING Includes piercing skin or assisting with piercing the skin; verifying number on the meter; interpreting results with predetermined written algorithms; and testing when symptoms of hypo/hyperglycemia are present. | | Can occur at any pre-approved location (i.e. classroom, health office) as long as arrangements for blood containment/clean up and Sharps disposal are made (must comply with OSHA standards). |

Miscellaneous Tools

Insulin Delivery Systems

The following delivery systems and aids may be useful for students who require assistance in insulin administration or desire an alternate delivery system (refer to the Resource Section of this manual for Manufacturer contact information):

| DELIVERY SYSTEM | DESCRIPTION |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Insertion aids: | |
| Autoject Autoject 2 (Owen Mumford, Inc.) | Spring-loaded plastic syringe holder positioned over skin. Press device against site, push button to insert needle, and deliver insulin simultaneously. |
| Automatic Injector (Becton Dickinson) | Spring-loaded plastic syringe holder positioned over skin. To insert needle, press button. |
| Instaject (Medicool, Inc.) | Combination syringe injector and blood lancet device. Button activated. |
| Inject-Ease (Palco) | Spring-loaded plastic syringe holder positioned over skin. To insert needle, press button. |
| Monoject Injectomatic (Can-Am Care) | Spring-loaded metal syringe holder positioned over skin. Press device against selected site to insert needle. |
| Insulin Pens: | |
| Autopen (Owen Mumford, Inc.) | (recommended to minimize dose errors) Automatic side injection button for delivery from any 1.5- or 3-ml insulin cartridge. The Autopen 3555 delivers 1 to 16 units in 1-unit increments. |
| B-D Pen (Becton Dickinson) | For use with all brands of 150-ml insulin pen cartridges; delivers 1-30 units in 1-unit increments; dose dial has black numbers on white background; reset groove for correction of dialing error. |
| B-D Pen Mini | For use with all brands of 150-ml insulin pen cartridges; delivers 0.5 to 15 units in 1/2-unit increments; dose dial has black numbers on white background; reset groove for correction of dialing error. |
| Disentronic Pen (Disentronic Medical Systems) | “Open system” allows use of any type, manufacturer, and mixture of insulin. Uses disposable 315-unit plastic cartridges. Delivers insulin in 1-unit increments from 1 to 80 units per injection. Dosage knob provides audible and tactile “clicks”. Misdialed doses are corrected by turning knob counter-clockwise. No reset needed. Large electronic display shows number of units selected and delivered. |
| Humalog Pen (Eli Lilly and Company) | Prefilled, disposable insulin delivery device that holds 3.0 ml (300 units) of insulin. Knob can be dialed forward or backward in single-unit increments. Emits audible click with each unit dialed until the number of units appears in the magnifying dose window. No refrigeration needed after first use. |

Miscellaneous Tools

Insulin Delivery Systems (cont.)

DELIVERY SYSTEM

DESCRIPTION

Insulin Pens (continued):

Humulin 70/30, 75/25 or
N Pen
(Eli Lilly and Company)

Humulin 70/30, 75/25 or Same as Humalog Pen except contains different mixtures of short acting and longer acting insulin.

NovoPen 1.5
PenFill 1.5 cartridge.

Delivers insulin in 1-unit increments up to 40 units; designed for use with Novolin.

Insulin Pumps:

Animas R-1000, 1000A
(Animas)

User-friendly menu-driven programming; basal delivery every three minutes; 12 basal rates in four personalized programs plus a temporary basal rate; audio bolus with dedicated audio bolus button; user-defined safety limits; occlusion, over-delivery and near empty alarms; pump accessible memory includes last 12 boluses; waterproof and backlight for easy viewing; multiple languages; enclosed lead screw; interchangeable fashion covers in various colors; pump clip; insurance assistance; 24-hour, toll-free customer service staffed by medical professionals; customized education program.

H-TRONplus
D-TRON, Dahedi
(Disentronic Medical
Systems)

Three pumps to choose from that offer various features. Patient receives two pumps (H-TRONplus only); three-minute insulin delivery system; some models have PC download capability; from 24 profiles and basal rates; bolus and basal rate alternatives; occlusion and over-delivery alarms; audible bolus delivery; 2 models are water-proof without additional case; glass and plastic cartridges available; free video; 24-hour, toll-free telephone support; insurance assistance; color choice, durable clip case, and other accessories available.

MiniMed 508

Multiple bolus options and basal rates that include 49 different profiles plus temporary basal rate; mini-glo backlight; child block (makes unintended programming impossible); self-test; remote programmer. Occlusion, over-delivery and near-empty alarms. Downloadable memory (PC software included). Water tight without any additional plugs or cases; user-defined safety limits; 24-hour, toll-free clinical services help line staffed by RNs; free videos and educational materials; insurance assistance.

CARRYING CASES

DESCRIPTION

Wright's Pre-filled Syringe Case
(Medicool, Inc.)

Sturdy polypropylene-drawn syringes: Case designed to look like a fountain pen, an internal structure that secures the syringe body and plunger.

The Wallet Organizer
(MEDport)

Durable case features SafeStore Insulin Tray, two clear pockets, and a meter compartment to organize supplies. SafeStore Insulin Tray holds and protects insulin vials and pre-drawn syringes in preset position. Holds 3 syringes or 2 syringes and 2 insulin vials. Includes one MEDIce refreezable mini ice pack.

BLOOD GLUCOSE MONITORING LOG FOR THE YEAR _____

School: _____ **Student Name:** _____ **Grade:** _____ **Teacher:** _____ **Room:** _____

Record blood glucose results and your initials in the box. Place initials and signature once on lines at bottom.
 Document treatment for low and high blood glucose results on the back.

| | MON | TUE | WED | THR | FRI | MON | TUE | WED | THR | FRI | MON | TUE | WED | THR | FRI | MON | TUE | WED | THR | FRI | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| July | | | | | | | | | | | | | | | | | | | | | |
| Aug | | | | | | | | | | | | | | | | | | | | | |
| Sep | | | | | | | | | | | | | | | | | | | | | |
| Oct | | | | | | | | | | | | | | | | | | | | | |
| Nov | | | | | | | | | | | | | | | | | | | | | |
| Dec | | | | | | | | | | | | | | | | | | | | | |
| Jan | | | | | | | | | | | | | | | | | | | | | |
| Feb | | | | | | | | | | | | | | | | | | | | | |
| Mar | | | | | | | | | | | | | | | | | | | | | |
| Apr | | | | | | | | | | | | | | | | | | | | | |
| May | | | | | | | | | | | | | | | | | | | | | |
| Jun | | | | | | | | | | | | | | | | | | | | | |

| | |
|-----------------------------------------------------|-------------------|
| REVIEW OF BLOOD GLUCOSE MONITORING PROCEDURE | |
| Date _____ | Reviewed by _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

| | | | |
|---------------------------------------------------|-----------------|----------------|-----------------|
| A = ABSENT R = REFUSED N = NO SCHOOL | | | |
| Initials _____ | Signature _____ | Initials _____ | Signature _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

Section 504 Plan & Individualized Education Plan (IEP)



Any school receiving federal funds must accommodate the special needs of its students to assure them a free and appropriate public education. Reasonable accommodations that are required for the management of diabetes at school can be met through the implementation of an Individualized School Healthcare Plan (ISHP), a 504 Plan or an IEP. The ISHP is not subject to procedural safeguards whereas the 504 plan and IEP are. Procedural safeguards ensure that students with disabilities receive a free and appropriate education without discrimination.

Other differences between these plans are the process by which they are developed and implemented.

Section 504

A 504 plan falls under the provisions of the Rehabilitation Act of 1973. It is designed to plan a program of instructional services and accommodations to assist students with special needs who are in a regular education setting. A student with a physical or emotional disability, or who has an impairment that restricts one or more major life activities qualifies for a 504 plan. Major life activities include caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, working and learning. Students with diabetes qualify for a 504 plan.

A parent, school nurse, Authorized Health Care Provider or teacher have the right to request that a student have a 504 plan (if the parent is in agreement). A request is usually made if there are accommodations that are not being met through the ISHP or if procedural safeguards are desired.

A 504 plan is typically designed by the teacher, parent and school administrator for educational accommodations. However, for the student with diabetes, the school nurse develops an Individualized School Healthcare Plan (ISHP) in collaboration with the parent, and this becomes the 504 Accommodation Plan after review and approval by the student study team. A copy of the ISHP is attached to the District's 504 form. This plan identifies the healthcare needs of the student and necessary accommodations for school attendance. If other educational accommodations are needed, they can be included in the same 504 plan. This now becomes a legal binding document subject to procedural safeguards.

Section 504 Plan & Individualized Education Plan (IEP) (continued)

In essence, the 504 Accommodation Plan ensures that the student with diabetes receives an appropriate education without discrimination.

Individualized Education Plans (IEP) for Students with Diabetes

An Individualized Education Plan (IEP) is written for a student with diabetes if it is determined that the student qualifies for special education services. A student with diabetes may qualify for special education services under the category “Other Health Impaired”. Other Health Impaired means “having limited strength, vitality or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment that: is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a hearing loss condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, and sickle cell anemia; and adversely affects a child’s educational performance.” Referrals to special education should only occur after the resources of the regular education program have been considered and more intense educational accommodations are needed beyond the “reasonable accommodations” of the 504 plan.

A referral is made and qualification is determined after evaluation and testing by the school’s multi-disciplinary team. The IEP provides specially designed instruction with goals and objectives so that the student can benefit from education. Student goals for progression towards independent management of their diabetes can also be written into the IEP.

The ISHP outlines the necessary accommodations for healthcare at school and is part of the IEP. The IEP Team reviews and approves the ISHP which is then attached to the IEP. School nursing services, referred to as “Designated Instructional Services” are required to manage and monitor healthcare services delineated in the ISHP and must be included on the service form of the IEP. The IEP is a legally binding document subject to procedural safeguards. In essence, the IEP ensures that the student with diabetes receives an appropriate education without discrimination.

School Stamp:

Grade: _____

Teacher: _____

Case Carrier: _____

**SAMPLE
SECTION 504 STUDENT ACCOMMODATION PLAN**

Student Name: **FOR SAMPLE USE ONLY**

Date of Meeting: _____

D.O.B.: _____

Student Number: _____ S.S. Number: _____

Address: _____

Home Phone: _____ Work Phone: _____

1. **Describe the nature of the concern leading to this referral:** (Include a statement of the 504 eligible condition).
Possible loss of cognitive ability if blood sugar is too low or too high. Possibility of seizure if blood sugar is too low. Long-term vascular implications if blood sugar remains high for extended periods.
2. **Describe the basis for the determination of the disability:**
Medical diagnosis of Type I Diabetes. Is insulin dependent and is currently receiving 4 injections per day (as needed to keep blood sugar at optimal levels).
3. **Describe how the disability limits major life activity:**
Blood sugar must be monitored and maintained at an optimal level to maintain above stated health status.
4. **Describe the reasonable accommodations that are necessary:**

| | |
|-------------------------------------------------------------------------------|-------------------|
| Assistance with and privacy for blood glucose testing and insulin injections. | Providers: |
| Snacks and meals whenever/wherever necessary. | Health Clerk |
| Free access to water and toilet. | Teacher |
| Full participation in extra-curricular programs. | Teacher |
| Scheduling physical education around meal times. | Coach |
| Allowances for increased absences. | Teacher |
| Implementation of the ISHP. | Administration |
| | School Nurse |

Review/Reassessment Date: (must be completed) _____

Participants (Signature and Title):

| | |
|--|--|
| | |
| | |
| | |

**SAMPLE
INDIVIDUALIZED EDUCATION PLAN**

STUDENT: Jane Doe SCHOOL: Sugar Pine Intermediate

DOB: 6-11-87 DATE: September 13, 2000

GOAL: Independent Health Care Maintenance with regards to diabetes

OBJECTIVE: BY June 2000 STUDENT WILL be able to operate meter independently, lance finger and place blood onto strip.

ACHIEVED: 6/00 NOT ACHIEVED:

OBJECTIVE: BY: June 2000 STUDENT WILL: be able to make snack choice independently based on blood glucose level.

ACHIEVED: 6/00 NOT ACHIEVED:

OBJECTIVE: BY June 2000 STUDENT WILL: take responsibility for leaving weekly snacks in the health office refrigerator on Monday AM; including carrots, celery, juice, fruit, cheese and crackers.

ACHIEVED: 6/00 NOT ACHIEVED:

OBJECTIVE: BY June 2000 STUDENT WILL: attend a peer support group meeting on a regular basis.

(Continue goal until June 2001)

ACHIEVED: NOT ACHIEVED: X

PERSON RESPONSIBLE: Julie Smith (OHI Specialist) DATE OF REVIEW: June 30, 2000

COMMENTS: Jane says she has refused to go to the meetings because she is embarrassed about sharing her feelings. A meeting will be scheduled with the school psychologist to assist Jane in dealing with these feelings and to facilitate attendance at the support group meeting. The school psychologist will contact the support group leader in an attempt to hook Jane up with another peer who attends these meetings.

PADRE Foundation

Diabetes Support Groups and Research



Mission Statement

Pediatric Adolescent Diabetes Research and Education (PADRE) Foundation is an organization established to provide educational programs and support groups as well as funding for clinical and scientific research of juvenile diabetes. The education programs provide care and support for toddlers, children 5 to 12 years old and teenagers with Type 1 Insulin-Dependent Diabetes and children with Type 2 diabetes, along with support groups for family members of children with diabetes. PADRE Foundation is the only program in Orange County providing educational support programs for families of children with diabetes with the support of psychologists, social workers, dietitian, and diabetes nurse specialists. PADRE has also initiated a statewide training program, Pediatric Education for Diabetic in Schools (PEDS). PADRE Foundation is an independent 501(c)(3) nonprofit, housed at Children's Hospital of Orange County (CHOC). PADRE Foundation's programs are open to all diabetic children and their families, regardless of their medical provider or where they are located.

Support Groups

PADRE Foundation conducts 120 education/support group classes every year. Listed below are brief descriptions of the programs offered. Monthly programs are offered at Children's Hospital of Orange County, Mission Hospital, Latino Health Access, and Kaiser Bellflower.

Parents: Doctors, nurses, psychologist, social workers, dietician and diabetes nurse specialists conduct the groups. Parents meet other parents and share experiences.

TOADS (Teenagers Diabetes Support): is a support group for 12-19 year olds. Meetings help teens form peer support ties while working with a psychologist who promotes open communication.

Kid's Klub: is a support group for children with diabetes ages 6-12 years old. Parents and children meet separately.

TadPoleS: is a support group for children with diabetes under six years of age. Special classes are offered for these children as they start to experience school.

Pebble in a Pond: Support Group for Parents of newly diagnosed children. Psychologist works with parents as a group, to teach coping skills as the parents adjust to living with a child with a chronic condition.

Latino Outreach: Nutrition and Diabetes Support Groups (Type 1) and Education Classes (Type 1 and Type 2).

Caregiver Classes: Training for caregivers that help them understand and give care to the child with Type 1 diabetes. Great for Grandparents, Aunts

PADRE Foundation

Diabetes Support Groups and Research (cont.)

Other PADRE Programs and Services

P.E.D.S.: Pediatric Education for Diabetes in School – Working in partnership with The California Department of Education, Mary Zombek, RN, MS, CPNP and CHOC. PADRE has initiated a state wide diabetes training and education program, intended to train school nurses and school personnel to be able to competently provide care for children with diabetes in their schools.

Day retreats, featuring educational experiences for families with a child who has diabetes. Breakfast with a guest speaker, seminars, workshops, lunch and fun.

Family Retreats: PADRE offers two annual family weekends with similar activities as the Diabetes Education Fun Fair, especially helpful for families that have recently been diagnosed. Families leave this weekend revitalized and more able to deal with the diagnosis of diabetes. The children develop peer relationships that can last a lifetime. UCLA Conference Center, Lake Arrowhead, February and Aliso Creek Inn, Laguna Beach, September.

Teen Retreat: Through the CHOC Diabetes Care Team, teens are exposed to the concept of insulin pump therapy. Teens are given a chance to try out an insulin pump on saline and go through the training process that includes nutrition, insulin pump education, physician consultation and psychology. For those who are already on the insulin pump the retreat offers an advanced skills tract. Insulin pump therapy allows the teens to have more normal blood sugars and freedom at a time in their life when they are developing their sense of independence.

Scholarship Fund for Camp Chinook: Scholarships are available for children who would benefit from a diabetic youth camp experience. Scholarships are based on a needs basis.

Halloween Carnival: A wonderful carefree day filled with costumes, games, crafts, face painting, a healthy lunch and snacks. Kids feel like all other kids on Halloween but in an environment away from an emphasis on candy that can be detrimental to their health.

Annual Holiday Party: A celebration of another successful year for tenured diabetic, and for conquering the first difficult year for the newly diagnosed.

Diabetes Emergency Kit: This emergency kit of necessary supplies and corresponding educational materials are given to newly diagnosed patients.

“PADRE Pages”: A newsletter sent to all families that highlights the latest information regarding diabetes research, education, fund raising activities, upcoming special events, and other articles of interest.

PADRE Volunteer Guild: Friends of PADRE support Education and Fundraising Events such as Family Retreats, Fashion Show and Golf

PADRE Foundation

Diabetes Support Groups and Research

PADRE'S Diabetes Research at CHOC

The efforts of the PADRE Foundation supports the Diabetes Research Laboratory at CHOC. The major thrust of our research is to develop treatments and ultimately a cure for juvenile diabetes. Diabetes research at CHOC has shed new light on how diabetes develops. The efforts of the Diabetes Research Team are focused on modulating the immune system to prevent further damage to the insulin producing cells and defining the role of the immune system and its mediators in beta cell development and growth. PADRE also supports clinical diabetes research, through recruiting and marketing efforts for the Diabetes Prevention Trial – Type 1 (DPT-1), a national study to prevent diabetes in family members of children with diabetes.

Annual Events

| | |
|-----------|-------------------------------------------|
| February | *Family Retreat in Lake Arrowhead |
| April | *Larry Syhre Memorial Golf Tournament |
| | *Annual Fashion Show featuring PADRE Kids |
| May | *Diabetes Educational Fun Fair |
| July | *North/South Football Game |
| August | *Teen Retreat |
| September | "Hunt Fore the Cure" Golf Classic |
| | *Family Retreat in Laguna Beach |
| October | *Harvest Carnival |
| December | *Holiday Party |

PADRE Foundation

Diabetes Support Groups and Research

If there is an interest in your community for starting up educational and/or support groups, please contact PADRE Fountain for further information.

455 South Main Street, Orange, CA, 92668
Phone: (714) 532-8330 Fax: (714) 532-8398
Email: padrefdn@earthlink.net
www.padrefoundation.org

E-mail school issues & questions regarding diabetes to
peds@padrefoundation.org

