DIABETES

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HYPOGLYCEMIA
(LOW BLOOD SUGAR, INSULIN REACTION, INSULIN SHOCK)

Onset
Sudden (matter of minutes) — related to insulin, meals and activity

Causes
• Too much insulin (may be due to carelessness)
• Not enough food (skipped snack, delayed meal, poor appetite)
• Excessive exercise without a snack or decreased insulin dose
• Sudden vomiting (car sickness, amusement rides, alcohol, etc.)

Symptoms
The child may not show all of the following symptoms, but the child and parent will learn to recognize symptoms more common to them.

Mild reaction: Irritable, hungry, weak, shaky, headache, stomach ache

Moderate reaction: Any of the above plus drowsiness, pale, clammy and cold skin, heart pounding, tingling of lips or tongue, dilating pupils, behavior changes, poor concentration, staggering gait.

Severe: Any of the above plus heavy drowsiness, extreme confusion, unconsciousness and seizures due to the brain not getting enough glucose.

Blood Test
Low blood sugar, usually less than 70mg/dl

Treatment
Treat all reactions immediately. A reaction can progress from a mild discomfort to a severe, life-threatening condition in a matter of minutes.
1. If working, playing, exercising, sports, etc. — STOP
2. Take fast acting glucose in some form.
3. Follow Diabetes Health Care Plan

It usually takes 10-20 grams of glucose to turn a moderate insulin reaction around. The child is often hungry and it takes a few minutes for the blood sugar level to reach normal.

Some quick forms of sugar are:
• B-D Glucose Tablets (2-4 tablets)
• ½ Cup orange juice or 1/3 Cup apple juice
• ½ Cup (4 oz.) sugar containing soft drink.
• 1 Cup (8 oz.) Gatorade
• 2 tsp. honey or corn syrup

For mild reactions, after initial treatment wait 15 minutes and follow with crackers and cheese or 8 oz. of milk.

Diabetes
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Tips

• Chocolate or candy bars are not good "quick sugar" choices because they are also high in fat which will not allow the sugar to act as quickly.

• Concentrated carbohydrates such as Instant Glucose, Monojel, B-D Glucose Tablets and cake decorating gel are convenient products to carry for treating insulin reactions. One advantage of concentrated carbohydrates is that they are not tempting (from a candy standpoint) and are more likely to be around when needed. They are good for purse, pocket, car, school lockers or teacher's desk. Taking 10 gm should bring the blood sugar back to near normal. Then the child should eat something that will digest slowly if it is not time for a meal or snack. Appropriate choices for a slower carbohydrate and protein would be cheese and crackers, milk or a sandwich.

For severe reactions, unconsciousness, or convulsions, do not give liquids or food by mouth for fear of choking. Instant Glucose, Monojel or similar products (cake gel) may be squeezed inside the cheek and are absorbed without swallowing.

Glucagon should be available. A prescription is necessary to purchase it. Glucagon works in about 5-10 minutes to bring the blood sugar level back to normal. As soon as the child is able to swallow, if not vomiting, they should be treated for a moderate reaction; that is, the child should be given a quick carbohydrate (like juice) followed by a slower carbohydrate with protein.

If Glucagon is not available, or the child does not respond, call 911 and the child should be taken immediately to a local hospital for intravenous (IV) glucose and evaluation.

Prevention

1. Avoid sudden changes in diet, insulin and exercise without planning ahead.
2. Remember between meal snacks (in relation to insulin peaks).
3. Realize importance of some diabetic identification. (Medical Alert Identification)
4. Remember that alcohol lowers blood sugar, sometimes for as long as 36 hours.
5. Plan ahead for exercise, late meals or any change in routine.
6. If child feels poorly or behaves strangely in any way, check for low blood sugar level and treat if needed. If unable to test, treat as if the child is low.
7. Always contact a physician if any of these treatments are unsuccessful and/or you have questions or concerns regarding the child's care.
HYPERGLYCEMIA/KETOACIDOSIS
(HIGH BLOOD SUGAR)

Onset
Gradual — can be hours to days

Causes
• Failure to balance diet, exercise and insulin
• Not enough insulin — doses that are too little or missed
• Illness of any sort
• Emotional stress
• Rebound from hypoglycemic reaction

Symptoms
• High blood sugar levels and positive ketones in the urine can be early warning signs.
• Frequent urination
• Thirst
• Fatigue
• Drowsiness
• Dry hot flushed skin
• Upset stomach and abdominal pain
• Headache
• Vomiting, dehydration
• Deep labored breathing (Kussmaul)
• Acetone odor to breath (smells fruity)

Blood Test
Glucose usually above 200mg/dl — often much higher

Urine Test
High sugar and ketones present

Treatment
1. Follow Diabetic Health Care Plan
2. Notify parent/guardian
3. Monitor blood sugar and urine ketones as directed. Hyperglycemia can progress to ketoacidosis, which is a life-threatening condition
4. Encourage fluids (unsweetened fluids such as tea, water, flat diet drinks)

Prevention
1. Do blood sugar tests and keep records. Check urine acetone as directed by physician.
   (Usually when blood sugar is elevated and/or when ill.)
2. Be alert for positive urine ketones and for possible causes.
3. IDEAS System — Good to think of when sugar is high
   I Insulin (Right doses? Right time? Right site?)
   D Diet (Right type? Right amount? Right time of eating?)
   E Emotions (Upset? Angry? Depressed?)
   A Activity (Increased? Decreased?)
   S Special (especially girls during menstruation or infections, flu)
HYPOGLYCEMIA OR DIABETIC COMA
(LOW BLOOD SUGAR)

CAUSES: too little food - too much insulin or oral diabetic medication - too much exercise
ONSET: sudden
URINE TESTS: negative

SYMPTOMS:

<table>
<thead>
<tr>
<th>Shaking</th>
<th>Fast Heartbeat</th>
<th>Sweating</th>
<th>Tingling</th>
<th>Dizziness</th>
<th>Staggering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hunger</td>
<td>Blurred Vision</td>
<td>Itching</td>
<td>Drowsiness</td>
<td>Headache</td>
<td>Nausea</td>
</tr>
</tbody>
</table>

TREATMENT: WHEN SYMPTOMS ARE PRESENT:
Drink a cup of orange juice, apple juice, ginger ale or cola; or eat 2 teaspoons of sugar, honey, or corn syrup; or eat 5 Lifesavers.

AFTER THE SYMPTOMS GO AWAY:
Eat a light meal such as a glass of milk and a peanut butter or meat sandwich.
HYPERGLYCEMIA OR DIABETIC COMA
(HIGH BLOOD SUGAR)

CAUSES: too much food - too little insulin - illness
ONSET: gradual
URINE TESTS: sugar strongly positive - acetone present
SYMPTOMS:

Extreme Thirst | More Urination | Dry Skin | Fever | Abdominal Pain | Difficult Breathing
Hunger | Blurred Vision | Itching | Drowsiness | Headache | Nausea

TREATMENT: CALL YOUR DOCTOR
Go to bed - lie flat - keep warm
Drink hot liquids - salty broth - tea, coffee; no sugar.
LETTER TO TEACHERS
STUDENT WITH DIABETES

TO: Teachers
FROM: School Health Clinic
DATE: 
SUBJECT: Student with Diabetes

1. Know the names of your student's parents and where to reach them.

2. Although diabetes is a disease, it is not infectious; students with diabetes are not sick and should not be treated as if they are ill. They can take part in gym, recess, class parties and field trips.

3. Diabetes is a condition in which the pancreas (a gland near the stomach) does not make enough insulin. Insulin is necessary to utilize glucose and starches in the diet for energy.

4. Insulin is a medication, which is taken by injection. Some students may need to take injections during school hours. Too much insulin is just as serious as too little.

5. If there is too much insulin (or too little sugar) in the bloodstream, it can cause an insulin reaction (hypoglycemic reaction). The symptoms of this may be:

<table>
<thead>
<tr>
<th>personality change</th>
<th>feels funny</th>
<th>fatigue</th>
</tr>
</thead>
<tbody>
<tr>
<td>inattentiveness</td>
<td>tingling sensations</td>
<td>shallow fast breathing</td>
</tr>
<tr>
<td>crankiness</td>
<td>seeing double</td>
<td>hunger</td>
</tr>
<tr>
<td>dizziness</td>
<td>headache</td>
<td>slurred speech</td>
</tr>
<tr>
<td>clammy skin</td>
<td>pale face</td>
<td>irritability</td>
</tr>
<tr>
<td>cold sweat</td>
<td>drowsiness</td>
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</tbody>
</table>

Most students have the same symptoms every time they have an insulin reaction. However, the symptoms of insulin reaction vary, so it is a safe rule that food should be given at once to any student with diabetes who is behaving differently. Do not wait until there is a break in class — insulin reactions must be treated immediately. Both the teacher and the student can learn to recognize an insulin reaction. Some students may become stubborn while having a reaction. Please remember that this is not intentional on the student's part. The student must eat something sweet, drink some fruit juice or chew glucose tablets, and then they can resume their normal day. These items can be kept in the student's or teacher's desk. They should be fed something more substantial within 15 minutes (such as peanut butter crackers) to prevent a recurring reaction. Symptoms of a more severe reaction are:

<table>
<thead>
<tr>
<th>inability to arouse</th>
<th>unconsciousness</th>
<th>possible convulsions</th>
</tr>
</thead>
</table>

Treatment for a more severe reaction is best carried out by the Emergency Medical Services (EMS) — call 911 or take emergency measures as instructed by your school policy. If the student has a seizure, do not force anything between the student's teeth. Do not put your fingers in the student's mouth as you may get accidentally bitten. Notify parents and doctor promptly.

6. If the student has an insulin reaction, notify the school nurse, who may then get in touch with the parents or a doctor.
7. Everyone who takes insulin will occasionally have an insulin reaction. If a student has one or more insulin reactions in a week's time, the parents should be notified.

8. A student with diabetes who doesn't feel well should never be sent to the school nurse alone or home alone.

9. Exercise is important for all students, but for the student with diabetes, think of it as an extra dose of insulin. Therefore, the student with diabetes should eat something before doing any strenuous exercise such as swimming, basketball, tennis, etc. Physical education should be scheduled after the lunch period if possible.

10. An adequate diet is an important method of controlling diabetes and often students with diabetes are instructed to eat snack foods at certain times of the day. The student should carry candy or something sweet with them in case they start to feel an insulin reaction. Do not forbid this.

11. Occasionally, students may need to test their blood or urine. We suggest that they perform the test in the nurse's or school office.

12. Illness, stress, or lack of insulin can result in high blood sugar. Symptoms of high blood sugar include a need to urinate more often. Bathroom privileges should be allowed and not postponed. Additional symptoms:

   | extreme thirst |
   | stomach ache   |
   | tiredness      |
   | frequent urination |
   | trouble seeing |

The student should still receive insulin, follow a meal plan, and check blood or urine during these times. It would be helpful to point these symptoms out to the school nurse and/or parents. Other more advanced symptoms could be:

   | deep labored breathing |
   | nausea/vomiting       |
   | flushed skin          |
   | fruity breath odor     |

13. Students with diabetes should take part in class parties, activities, and field trips. Encourage parents of all students to send treats to school which are not high in sugar, such as plain cake or plain cookies, fruit, or snack mixes. If a snack high in sugar will be served, please ask the parents of the student with diabetes to provide an alternative snack.

14. If the student has recently been hospitalized or newly diagnosed, a private teacher/student meeting when the student returns to school will be helpful. Another meeting with the student, the student’s parents and the school nurse to discuss what you can do to assist the student in diabetes management while at school (e.g., scheduling, snacks, treating insulin reactions) is important.

15. Overconcern with the student with diabetes can be detrimental to the student’s adjustment to the disease. Knowing how to treat low blood sugar reactions and who to contact when the student’s blood sugar is high is sufficient.

16. Please distribute this fact sheet to all school personnel such as principals, teachers, office secretaries and nurses. It is important for all persons working with the student with diabetes to understand what diabetes is and how to care for it.

— DIABETES ASSOCIATION OF GREATER CLEVELAND, 3601 S. Green Road, Suite 100 Cleveland, Ohio 44122, Phone: 591-0800, Fax: 591-0320
STUDENT 
GRADE/HOMEROOM ____________________________

TRANSPORTATION _______ bus _________ car _________ driver

CONTACT TELEPHONE NUMBERS IN PRIORITY
Call 
1. _____________________________________________
2. _____________________________________________
3. _____________________________________________

PRESCRIBER ________________________________
Phone ________________________________ Fax ________________________________

Start Date _______ End Date _______

Blood Glucose Monitoring: Location ________________________________

Student permitted to carry meter
☐ Yes  ☐ No
☐ before lunch  ☐ 1-2 hours after lunch
☐ before snacks  ☐ when he/she feels low or ill
☐ after snacks  ☐ before getting on the bus  ☐ before exercise

Snack: ☐ Please allow a ___ gm snack at _________  ☐ before exercise

Treatment for Low Blood Glucose (Hypoglycemia)

☐ Student may treat "low" with food according to schedule below
☐ if blood glucose is less than 70 give ________________________________
☐ if blood glucose is less than 50 give ________________________________

Retest blood glucose 15 minutes after treating "low".

CALL PARENT WHEN BLOOD GLUCOSE IS LESS THAN ________________________________

Notify parent and record blood glucose value and treatment.

Snacks are provided by parent/guardian and located:

Comments:

Will glucagon be provided? _______ Yes _______ No

IF Yes, describe the circumstances when it should be administered. ________________________________

Amount to be administered: _____________ mg(s) IM and call 911

Treatment of High Blood Glucose (Hyperglycemia):

☐ Provide water and access to bathroom  ☐ See next page for insulin instructions (if applicable)

Comments:

☐ Always call parent for dosage

☐ Check urine for Ketones when Blood Glucose is over _________mg/dl

Call parent and/or prescriber when Blood Glucose is greater than _________and/or Ketones are _________

My child's insulin is administered via:

☐ Vial/syringe  ☐ Insulin Pen  ☐ Insulin Pump

Can Student draw correct dose, determine correct amount, and give own injection? _______ Yes _______ No
INSULIN

☐ Student not taking Insulin at school

Insulin is located ______________________

Daily lunchtime dose: __________________ Type of Insulin ____________________________

(in insulin/carb ratio or other)

Correction/Adjustment Scale: __________________ Type of Insulin _______________________

________________ units if blood glucose is _______ to _______ mg/dl
________________ units if blood glucose is _______ to _______ mg/dl
________________ units if blood glucose is _______ to _______ mg/dl
________________ units if blood glucose is _______ to _______ mg/dl

Parental authorization should be obtained before administering a correction dose for high blood glucose levels (excluding lunchtime) _______ YES _______ NO

For Students with Insulin Pumps

Type of pump:

Type of Insulin in pump:

Insulin/Carbohydrate Ratio: Correction Factor:

☐ Parents are authorized to adjust the insulin dosage under the following circumstances:

__________________________________________

The checklist below indicates the activities that are self-managed, those needing assistance from school personnel and those requiring parental involvement that must be performed during the school day in order for him/her to maintain glucose control.

Management of Diabetes in School

<table>
<thead>
<tr>
<th>Activity/Skill Level</th>
<th>Independent Student</th>
<th>School Assistance</th>
<th>Parental Involvement</th>
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</thead>
<tbody>
<tr>
<td>Blood Glucose Monitoring</td>
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<td>Insulin Dose Calculation</td>
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<td>Carbohydrate Counting</td>
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<td>Insulin Injection Administration</td>
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<tr>
<td>Treatment for Mild Hypoglycemia</td>
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<tr>
<td>Selection of Snacks and Meals</td>
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<tr>
<td>Testing of Urine Ketones</td>
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<tr>
<td>Management of Insulin Pump</td>
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</table>

Authorization for the Release of Information:

I hereby give permission for ____________________________ (school) to exchange specific, confidential medical information with ____________________________ (Diabetes healthcare provider) on my child ______________________, to develop more effective ways of providing for the healthcare needs of my child at school.

Prescriber Signature ________________________ Date ________________

Parent Signature ____________________________ Date ________________

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# DIABETES LOG

<table>
<thead>
<tr>
<th>Date</th>
<th>Time In</th>
<th>First Blood Glucose</th>
<th>Action Taken</th>
<th>Parent Contact</th>
<th>Carb Count</th>
<th>Time In</th>
<th>Second Blood Glucose</th>
<th>Destination</th>
<th>Signature</th>
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INFORMATION FOR THE USER

GLUCAGON
FOR INJECTION
(rDNA ORIGIN)

BECOME FAMILIAR WITH THE FOLLOWING INSTRUCTIONS BEFORE AN EMERGENCY ARISES. DO NOT USE THIS KIT AFTER DATE STAMPED ON THE BOTTLE LABEL. IF YOU HAVE QUESTIONS CONCERNING THE USE OF THIS PRODUCT, CONSULT A DOCTOR, NURSE OR PHARMACIST.

Make sure that your relatives or close friends know that if you become unconscious, medical assistance must always be sought. Glucagon may have been prescribed so that members of your household can give the injection if you become hypoglycemic and are unable to take sugar by mouth. If you are unconscious, glucagon can be given while awaiting medical assistance.

Show your family members and others where you keep this kit and how to use it. They need to know how to use it before you need it. They can practice giving a shot by giving you your normal insulin shots. It is important that they practice. A person who has never given a shot probably will not be able to do it in an emergency.

IMPORTANT

• Act quickly. Prolonged unconsciousness may be harmful.
• These simple instructions will help you give glucagon successfully.
• Turn patient on his/her side to prevent patient from choking.
• The contents of the syringe are inactive. You must mix the contents of the syringe with the glucagon in the accompanying bottle before giving injection. (See DIRECTIONS FOR USE below.)
• Do not prepare Glucagon for Injection until you are ready to use it.

WARNING: THE PATIENT MAY BE IN A COMA FROM SEVERE HYPERGLYCEMIA (HIGH BLOOD GLUCOSE) RATHER THAN HYPOGLYCEMIA. IN SUCH A CASE, THE PATIENT WILL NOT RESPOND TO GLUCAGON AND REQUIRES IMMEDIATE MEDICAL ATTENTION.

INDICATIONS FOR USE

Use glucagon to treat insulin coma or insulin reaction resulting from severe hypoglycemia (low blood sugar). Symptoms of severe hypoglycemia include disorientation, unconsciousness, and seizures or convulsions. Give glucagon if (1) the patient is unconscious (2) the patient is unable to eat sugar or a sugar-sweetened product (3) the patient is having a seizure, or (4) repeated administration of sugar or a sugar-sweetened product such as a regular soft drink or fruit juice does not improve the patient's condition. Milder cases of hypoglycemia should be treated promptly by eating sugar or a sugar-sweetened product. (See INFORMATION ON HYPOGLYCEMIA below for more information on the symptoms of hypoglycemia.) Glucagon is not active when taken orally.

DIRECTIONS FOR USE

TO PREPARE GLUCAGON FOR INJECTION

1. Remove the flip-off seal from the bottle of glucagon. Wipe rubber stopper on bottle with alcohol swab.
2. Remove the needle protector from the syringe, and inject the entire contents of the syringe into the bottle of glucagon. DO NOT REMOVE THE PLASTIC CLIP FROM THE SYRINGE. Remove syringe from the bottle.

3. Swirl bottle gently until glucagon dissolves completely. GLUCAGON SHOULD NOT BE USED UNLESS THE SOLUTION IS CLEAR AND OF A WATER-LIKE CONSISTENCY.

TO INJECT GLUCAGON

Use Same Technique as for Injecting Insulin

4. Using the same syringe, hold bottle upside down and, making sure the needle tip remains in solution, gently withdraw all of the solution (1 mg mark on syringe) from bottle. The plastic clip on the syringe will prevent the rubber stopper from being pulled out of the syringe; however, if the plastic plunger rod separates from the rubber stopper, simply reinsert the rod by turning it clockwise. The usual adult dose is 1 mg (1 unit). For children weighing less than 44 lb (20 kg), give 1/2 adult dose (0.5 mg). For children, withdraw 1/2 of the solution from the bottle (0.5 mg mark on syringe). DISCARD UNUSED PORTION.
USING THE FOLLOWING DIRECTIONS, INJECT GLUCAGON IMMEDIATELY AFTER MIXING.

5. Cleanse injection site on buttock, arm, or thigh with alcohol swab.
6. Insert the needle into the loose tissue under the cleansed injection site, and inject all (or 1/2 for children weighing less than 44 lb) of the glucagon solution. THERE IS NO DANGER OF OVERDOSE. Apply light pressure at the injection site, and withdraw the needle. Press an alcohol swab against the injection site.
7. Turn the patient on his/her side. When an unconscious person awakens, he/she may vomit. Turning the patient on his/her side will prevent him/her from choking.
8. FEED THE PATIENT AS SOON AS HE/SHE AWAKENS AND IS ABLE TO SWALLOW. Give the patient a fast-acting source of sugar (such as a regular soft drink or fruit juice) and a long-acting source of sugar (such as crackers and cheese or a meat sandwich). If the patient does not awaken within 15 minutes, give another dose of glucagon and INFORM A DOCTOR OR EMERGENCY SERVICES IMMEDIATELY.
9. Even if the glucagon revives the patient, his/her doctor should be promptly notified. A doctor should be notified whenever severe hypoglycemic reactions occur.

INFORMATION ON HYPOGLYCEMIA

Early symptoms of hypoglycemia (low blood glucose) include:

- sweating
- dizziness
- palpitation
- tremor
- hunger
- restlessness
- tingling in the hands, feet, lips, or tongue
- lightheadedness
- inability to concentrate
- headache

If not treated, the patient may progress to severe hypoglycemia that can include:

- disorientation
- unconsciousness

The occurrence of early symptoms calls for prompt and, if necessary, repeated administration of some form of carbohydrate. Patients should always carry a quick source of sugar, such as candy mints or glucose tablets. The prompt treatment of mild hypoglycemic symptoms can prevent severe hypoglycemic reactions. If the patient does not improve or if administration of carbohydrate is impossible, glucagon should be given or the patient should be treated with intravenous glucose at a medical facility. Glucagon, a naturally occurring substance produced by the pancreas, is helpful because it enables the patient to produce his/her own blood glucose to correct the hypoglycemia.
POSSIBLE PROBLEMS WITH GLUCAGON TREATMENT

Severe side effects are very rare, although nausea and vomiting may occur occasionally. A few people may be allergic to glucagon or to one of the inactive ingredients in glucagon, or may experience rapid heart beat for a short while.

If you experience any other reactions which are likely to have been caused by glucagon, please contact your doctor.

STORAGE

Before dissolving glucagon with diluting solution — Store the kit at controlled room temperature between 20° to 25°C (68° to 77°F).

After dissolving glucagon with diluting solution — Should be used immediately. Discard any unused portion. Solutions should be clear and of a water-like consistency at time of use.

Literature revised February 18, 2005

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Indianapolis, IN 46285, USA

PA 2284 AMP
PRINTED IN USA
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MEDICATION ADMINISTRATION: GLUCAGON

CONFIDENTIAL

FOR

* WRITTEN ON BY

DOB

REVIEWED ON BY

RN ( )

REVIEWED ON BY

RN ( )

* To be reviewed by RN at least annually.

IF STUDENT [ ] UNCONSCIOUS/UNRESPONSIVE/UNABLE OR UNWILLING TO TAKE ORAL TREATMENT - [ ] SEIZURE, INJECT GLUCAGON, SUBCUTANEOUSLY INTO ABOVE NAMED STUDENT IMMEDIATELY FOLLOWING STEPS 1 - 21.

1. Delegate calls to:
   a. EMS/911,
   b. Glucagon certified staff:

2. Gather Glucagon kit, alcohol swabs, disposable gloves, emesis basin. Stored:

3. Remove flip-off seal on bottle.
   Check medication monthly. Advise parent immediately to replace medicine when observing medication expiration date is to occur in 2 weeks. In emergency, use expired medication.

   Should you accidentally incur a needle stick prior to injecting medication, discard syringe. If available, use a new syringe. Otherwise, await arrival of EMS.

4. Wipe rubber stopper on bottle with alcohol swab.

5. Remove cap from needle; do not touch needle. Do not remove plastic cup from the syringe.

6. Push all fluid from syringe into bottle. Do not withdraw needle from bottle. Gently shake bottle until all powder is dissolved.

   Glucagon should not be used unless the solution is clear and of a water-like consistency. In the event that the glucagon solution is not clear and water-like, do not administer and monitor pulse and breathing until EMS 911 arrives.

7. Turn bottle upside down and withdraw [ ] all fluid/ [ ] ______cc from bottle.

8. Remove syringe from bottle.

9. Cleanse 2-inch area of upper arm. (The thigh may be used if unable to access arm.).

10. Grasp cleansed area of arm between thumb and forefinger with your nondominant hand, but do not squeeze skin/tissue. (Continued on Page 2)

(Dispose of used syringe in nonpermeable container and follow your district's guidelines for discard of biohazards.)

IF PROCEDURE IS IMPLEMENTED: PHOTOCOPY. PROCEDURE NOTE TIME, DATE, AND ACTION. SIGN YOUR LEGAL SIGNATURE. GIVE TO THE REGISTERED NURSE.

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11. Hold syringe between thumb and forefinger.

12. Insert needle at 90° angle using dart-like action.

13. Let loose of skin held by nondominant hand and transfer hold to syringe.

14. Push all medication slowly from syringe.

15. Discard syringe in sharps container.

16. Turn student to side-lying position preferably left, student may vomit. (Have emesis basin immediately available.)

17. Remain with student until arrival of EMS/9-1-1 personnel.

18. Monitor for seizure (e.g., muscular jerking, eyes rolling back.) If observed, delegate someone to clear area of near by objects.

19. Monitor for breathing and pulse. If absent, begin CPR.

20. If student fully awakens, feed fast acting food (e.g. 1/2 cup juice, regular soda pop, or milk clear liquid, e.g. sugar dissolved in water, regular soda pop such as GingerAle®, 7 Up®, or Sprite®; or honey and water.).

21. Wash hands.
Evaluation Tool
Medication: Glucagon

(open book – you may use printed information)

1. Glucagon is a medication ordered to treat (hypoglycemia/low blood sugar.)

2. Under what circumstance(s) will you inject the glucagons for this assigned student? (Unconsciousness / unable to take oral feeding, seizure.)

3. What are the five R’s? (Right student, right medication, right dose, right time, right route).
Evaluation Tool
Medication: Glucagon

(open book – you may use printed information)

1. Glucagon is a medication ordered to treat what?

2. Under what circumstance(s) will you inject the glucagons for this assigned student?

3. What are the five R’s?

4. Identify the glucagons certified staff in your building.

__________________________        _______________________
R.N. Name and Date                   Caregiver and Date

__________________________        _______________________
Student                          School
Glucagon Policy for Health Aides

Health aides are now permitted to give Glucagon injections to students with severe hypoglycemia (low blood sugar). Health aides that have been properly trained and evaluated have liability coverage through PSI. The following conditions MUST be met before the health aide is able to administer this emergency medication:

A physician’s order and parent signed permission must be in place for the Glucagon. The parent must provide a pharmacy labeled Glucagon Kit.

The health aide must receive instruction from a PSI registered nurse. This instruction shall include a review of all steps and skills necessary to safely administer the Glucagon (which can be found in the Diabetes section of the Health Resource Guide pg. 11–18).

Documentation of this training must occur and must include verbal acknowledgment by the health aide that he/she understands the method of administration and can perform a return demonstration of the same, can recognize signs and symptoms necessitating administration and can describe the need for and describe appropriate follow-up care.

A Glucagon training kit, and medication video are available for loan from the PSI office to aide in training. A written teaching plan can be found on pages 110–18 in the Diabetes Section of the Health Resource Guide.

A documentation form reflecting the training is available in the Health Resource Guide, Evaluation Section page 14. This should be completed by the nurse and health aide and returned to the PSI office where it will be kept in the health aide’s personnel file.
LETTER TO PARENTS
DIABETES

TO: Parents
FROM: School Health Clinic
DATE: ________________
SUBJECT: Diabetic Health Care Plan

You have told us that your child has diabetes.

The American Diabetes Association recommends that all students with Diabetes have a Diabetic Health Care Plan at school. This plan needs to be completed by your health care provider each school year. The Diabetic Health Care Plan must be signed by the health care provider and the student's parent/guardian. Some health care providers may have their own forms. These are acceptable as long as the requested information is provided and it is signed by the health care provider and the parent/guardian.

In order to provide the best care, please update us with any changes in the management of your child's Diabetes.

I will share the information with the appropriate school personnel such as the classroom teacher(s) and principal.

It is the responsibility of the parent/guardian to provide the school with all the information, materials and supplies necessary for school personnel to care for their student's diabetes at school.

Please return the enclosed plan to your plan to your child's school.

This plan may be faxed to ________________

Enclosure
Blood Glucose Monitoring

Blood Glucose Monitoring Overview

Blood glucose monitoring is critical to diabetes management. Blood glucose levels fluctuate throughout the day. Regular blood glucose monitoring provides information for management decisions. It is also critical for the identification, treatment, and prevention of high and low blood glucose levels.

The frequency and timing of regular blood glucose tests should be outlined in the physician's written orders for the student. Additional blood glucose testing may be required when there is a change in physical activity level, food intake, and medication or when the student is not feeling well.

Many students are able to perform blood glucose monitoring themselves in non-emergency situations. Other students, because of their age, maturity level, or other factors, may require an adult to check their blood glucose or assist them with this task. All students may need an adult's assistance to check blood glucose when experiencing severe hypoglycemia.

In order to check blood glucose the following tools are needed (parent/guardian will provide):

- Blood glucose meter
- Testing strip (specific to each meter)
- Lancet (a sharp, pin-like tool)
- Sharps container (to dispose of lancets)

Preparation

Begin by having the student wash and dry hands thoroughly (if possible). If assisting or performing the blood glucose check for the student, put on disposable gloves and when finished, wash hands thoroughly after removing gloves.

Performing the Blood Glucose Test

Turn the blood glucose meter on if it does not turn on automatically when a test strip is inserted. Using the test strips supplied by the parent/guardian, insert a test strip into the meter. Blood samples for use with the meter are often obtained from the side of the finger but some meters allow blood samples from other parts of the body such as the forearm. Follow the instructions specific to the meter provided by the parent/guardian on how and where to obtain blood for the meter.

The results from the blood glucose test will be displayed on the meter. Processing times vary. Most meters will display results with one minute. Dispose of the lancet in a sharps container. Test strips may be discarded in a
regular trash can. Record the blood glucose result and as needed, take action according to the physician's written orders for the student.

Meters do not only display numbers. Some display "Lo" or "Hi" for results outside of the meter's parameters. Some display error messages. Consult with the meter manual to determine the meaning of messages. A copy of the meter manual should be supplied by the parent/guardian and kept in the health office.
DIABETES WEB SITES

http://www.diabetes.org/default.htm
The American Diabetes Association

http://www.diabetes.com
Diabetes.com

http://www.betterhealth.com/HK/SubjectMain/0.1344.164.00.html
Better Health/Diabetes

http://www.dce.org
Diabetes care and education from the American Dietetic Association

http://www.joslin.harvard.edu or http://www.joslin.org
The Joslin Diabetes Center at Harvard

Diabetes site sponsored by Lilly. Nice educational site.

http://www.niddk.nih.gov
National Institute of Diabetes and Digestive and Kidney diseases: National Institute of Health

http://gourmetconnection.com/diabetic
The Diabetic Gourmet Magazine

http://www.danc.org
Diabetes Association of Greater Cleveland

http://www.lcdf.org
Juvenile Diabetes Research Foundation

http://www.eatright.org
American Dietetic Association

http://www.aadnet.org
American Association of Diabetes Educators

http://www.childrenwithdiabetes.com
Children with Diabetes: On-line community for kids, families, and adults with diabetes.

http://www.diabetesmonitor.com/index.htm
Diabetes Monitor

http://www.diabetes-world.com
Diabetes World

http://www.diabetes-exercise.org
Diabetes Exercise and Sports Association

INSULIN PUMP RESOURCES

www.insulin-pumpers.org
Insulin pumps

www.pumwearinc.com
Pump wear

www.diabetesincontrol.com
Diabetes Mall

www.diabetesinterview.com
Diabetes Interview

www.diabetesnet.com
Current Insulin pumps

www.medexplorer.com
Nutrition information

www.calorie-king.com
Calorie King