BEAT Diabetes Manual

Section 1  Diabetes Medication Administration Form (DMAF)
Section 2  Individualized Nursing Care Plan for the Student with Diabetes
Section 3  Signs, Symptoms and Treatment of Mild and Moderate Hypoglycemia
Section 4  Signs, Symptoms and Treatment of Severe Hypoglycemia
Section 5  Signs, Symptoms and Treatment of Hyperglycemia and DKA
Section 6  Insulin Types: Onset, Peak and Duration
Section 7  Insulin Coverage for a Basal-Bolus Regimen
Section 8  Insulin Pumps
Section 9  Developmental Issues, Diabetes Care, Tasks & Educational Considerations
Section 10 Psychosocial Aspects of Caring for a Child with Diabetes
Section 11 Resources
Section 12 Important Diabetes Terms
### Section 2: Individualized Nursing Care Plan for the Student with Diabetes

#### Nursing Diagnosis: Physiological injury due to acute complications of hypoglycemia or hyperglycemia
- **Goals:** Student will recognize and manage, with assistance as needed, hypoglycemia and hyperglycemia
  - Student will have blood sugar levels within target range

#### INTERVENTIONS
1. Evaluate student’s understanding of his/her symptoms of low blood sugar in early stages.
2. Instruct student what to do at school when early symptoms begin.
3. Provide location and privacy for self-care activities.
4. Monitor blood sugar checking, medication administration, and diet adherence - reinforce and instruct as necessary.
5. Provide school staff with information about diabetes including signs and symptoms of hypoglycemia and hyperglycemia.
6. In collaboration with the student, parent, and school staff:
   - Develop an emergency plan for the student.
   - Develop plan for accommodations in school (e.g., unrestricted access to water and bathroom, snack times, extended test time, etc)
7. Encourage student to wear medical identification.

#### Nursing Diagnosis: Risk for ineffective therapeutic regimen; Management related to insufficient knowledge of Condition; Self monitoring of blood sugar, Medications, Diet, Risk of infection, and Signs and Symptoms of complications.
- **Goal:** Student will demonstrate understanding of diabetes and its therapy.

#### INTERVENTIONS
1. Assess student's general knowledge of diabetes and self management.
2. Considering student's developmental level instruct student in the:
   - Pathophysiology of diabetes.
   - Meaning of sugar levels and urine checking - the appropriate actions based on readings
   - Relationship of exercise, illness, and stress to diabetes management
   - Characteristics of prescribed medications
   - Basic food groups, meal planning, and carb counting
   - Importance of personal hygiene and good skin care technique.
3. Reinforce recognition of signs and symptoms of complications

#### Nursing Diagnosis: Risk for ineffective coping related to chronic disease.
- **Goal:** Student will demonstrate increased adaptation to lifestyle requirements and perform self-care behaviors

#### INTERVENTIONS
1. Assist student to identify stressors by creating opportunities for student to verbalize feelings about diabetes, management requirements, and relationship with peers.
2. Help student identify issues that he/she wants to work on.
3. Assist student's, friend's and family adjustment by active listening, communication facilitation, and diabetes education.
4. Provide referral information to diabetes support groups.
5. Monitor and support behaviors around acceptance of and positive adaptation to diabetes (i.e., regular checking, healthy food choices, and expression of feelings)
Section 3: Signs, Symptoms, and Treatment of Mild and Moderate Hypoglycemia

Treatment of Mild or Moderate Hypoglycemia
Onset - Sudden

Causes of Hypoglycemia - Mismatch of food, physical activity, and insulin

- Too much insulin
- Missed or delayed food
- Too much, too intense, or unplanned physical activity

Symptoms

- Sweating
- Drowsiness
- Dizziness/Lightheadedness
- Palpitations/Rapid heart beat
- Headache
- Hunger
- Sleep disturbance
- Tremor
- Unsteady movement
- Tingling in hands, feet, lips, and tongue
- Anxiety
- Irritability
- Restlessness
- Personality change
- Behavior change
- Poor concentration
- Depressed mood
- Blurred vision
- Slurred speech
- Change in mental status

Treatment: the "15-15 Rule"

Check blood sugar. If blood sugar, X mg/dl in DMF:
Treat with 15 gms of fast acting carb. Common choices:

- 4 oz. fruit juice
- 3-4 glucose tablets
- 4-6 small hard candies
- 1-2 tablespoons of honey
- 6 oz. regular (not diet) soda (about half a can)
- 3 tsp. table sugar
- 1 tube of 15 gm glucose gel
- 15 grams of cake frosting

Re-Check in 15 min. Continue to check and treat until blood sugar > X mg/dl in DMF.
Section 5: Signs, Symptoms, and Treatment of Hyperglycemia and DKA

### Causes of Hyperglycemia
- Onset: Immediate, Over several hours or days
  - Late, missed or too little insulin
  - Expired insulin
  - Food not covered by insulin
  - Decreased physical activity
  - Illness or Infection
  - Stress
  - Hormones
  - Medications such as oral steroids
  - Menstrual periods

### Mild or Moderate Symptoms
- Increased thirst (Polydipsia)
- Frequent urination (Polyuria)
- Increased appetite (Polyphagia)
- Tired or sleepiness
- Dry mouth
- Inattentiveness or poor concentration
- Blurred vision
- Weight loss
- Decreased appetite
- Flushed skin

### Severe Symptoms: Risk for DKA
- Sweet, fruity breath
- Abdominal pain or cramps
- Nausea
- Vomiting
- Labored breathing
- Very weak
- Confused
- Unconscious

### Treatment
- Check bG. If > ___ mg/dL, test ketones.
  - If meter reads HI (>600 mg/dL), call parent and/or MD. Call 911 if can't reach parent or MD.
- Allow free use of bathroom.
- Encourage student to drink water or sugar free liquids.
- Give insulin if ordered in DMF.

### Ketones
- If small or trace, re-test ketones and bG in ___ hrs.
- If moderate or large, potential MEDICAL EMERGENCY
  - Call parent and/or MD
  - Give water and insulin, if ordered. No gym.
  - If vomiting, unable to take po, and MD not available, call 911.
Section 6: Insulin Types: Onset, Peak, and Duration

<table>
<thead>
<tr>
<th>Insulin Types: Onset, Peak, and Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rapid Acting</strong></td>
</tr>
<tr>
<td>Aspart <em>(Novolog)</em></td>
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<tr>
<td>Lispro <em>(Humalog)</em></td>
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<tr>
<td>Glulisine <em>(Apidra)</em></td>
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<tr>
<td><strong>Short Acting</strong></td>
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<tr>
<td>Regular <em>(Humulin R, Novolin R)</em></td>
</tr>
<tr>
<td><strong>Intermediate acting</strong></td>
</tr>
<tr>
<td>NPH <em>(Humulin N)</em></td>
</tr>
<tr>
<td><strong>Long acting (Basal)</strong></td>
</tr>
<tr>
<td>Glargine <em>(Lantus)</em></td>
</tr>
<tr>
<td>Detemir <em>(Levemir)</em></td>
</tr>
</tbody>
</table>

Mixed Insulins

- 70% NPH/30% Regular *(Humulin and Novolin 70/30)*
- 75% Lispro protamine suspension/25% lispro *(Humalog mix 75/25)*
- 70% Aspart protamine suspension/30% Aspart *(Novolog mix 70/30)*
- 50% NPH/50% Regular *(Humulin 50/50)*
- 50% Lispro protamine suspension/50% lispro *(Humalog Mix 50/50)*

It is important to understand the onset, peak, and duration of insulin so that you can anticipate times when the blood sugar might be high or low due to the action of the insulin.

Example: You give 3 units of aspart to a 7 year old student right before she goes to lunch. The lunch line is 20 minutes long. It takes her 10 minutes to find a seat with her friends in the crowded lunchroom. By the time she sits down, she is symptomatically hypoglycemic.

Because you know that aspart may start to work within 10 minutes, you can anticipate that she would get low at lunch, and advise her teacher to bring her to the front of lunch line because she needs to eat within 10 minutes of getting her insulin.
Section 7 Insulin Coverage for a Basal-Bolus Regimen

- Insulin to Carb ratio (I:C) 1 unit of insulin will cover _______ grams of carb
- Sensitivity Factor (AKA Correction Factor): 1 unit of insulin will decrease the blood sugar ______ points
- Target Blood Sugar: the blood sugar that is ideal for the student

Carb Coverage = \# gm carb in meal \times units insulin
\# gm carb in I:C

Correction Dose = \frac{bG - Target BG}{Sensitivity Factor} \times units insulin

Round DOWN the insulin dose to the closest 0.5 unit for syringes/pens, or 0.1 unit for pumps.

Doctor may prescribe:
- Carb coverage only OR
- Carb coverage PLUS Correction dose when \( bG > Target bG \)

Example 1: Carb coverage only:

\begin{align*}
\text{Current BG} &= 250 \\
\text{Target bg} &= 150 \\
\text{Sensitivity Factor} &= 1:100 \\
\text{IC ratio} &= 1:20 \\
\text{Lunch carbs} &= 60 \text{ gms}
\end{align*}

\begin{align*}
\text{Carb Coverage} &= \frac{60 \text{ gms carb}}{20} = 3 \text{ units} \\
\text{Total Dose} &= 3 \text{ units}
\end{align*}

Example 2: Carb coverage PLUS Correction Dose when \( bG > Target bG \)

\begin{align*}
\text{Current BG} &= 250 \\
\text{Target bg} &= 150 \\
\text{Sensitivity Factor} &= 1:100 \\
\text{IC ratio} &= 1:20 \\
\text{Lunch carbs} &= 60 \text{ gms}
\end{align*}

\begin{align*}
\text{Carb Coverage} &= \frac{60 \text{ gms carb}}{20} = 3 \text{ units} \\
\text{PLUS} \quad \text{Correction Dose} &= \frac{250 - 150}{100} = 1 \text{ unit} \\
\text{Total Dose} &= 3 \text{ units} + 1 \text{ unit} = 4 \text{ units}
\end{align*}
Section 8: Insulin Pumps

PROBLEM-SOLVING TIPS FOR UNEXPLAINED ELEVATED BLOOD GLUCOSE WITH PUMPS

UNEXPLAINED ELEVATED BLOOD GLUCOSE is a blood glucose NOT due to under-estimated coverage for carbs or missed bolus. Remember, the insulin pump uses only rapid acting insulin. If the FLOW of insulin is stopped, the student can develop high blood glucose, ketones and go into diabetic ketoacidosis within hours.

CAUSES OF UNEXPLAINED ELEVATED BLOOD GLUCOSE may include:
- Blocked insertion set-the most common cause: site may be red or swollen
- Leaks in the syringe or tubing
- Empty reservoir
- Incorrect basal rates or times
- Pump left in suspend
- Pump not connected

NURSE IS NOT RESPONSIBLE FOR CHANGING THE INFUSION SET.

NURSE SHOULD BE COMFORTABLE TROUBLESHOOTING THE PUMP ALARMS.

Consult:
- 800 Number on back of pump
- Pump manual
- Company website

In case of pump failure or a blockage of the infusion set or insulin pod:
- The nurse will cover carbs and correction dose with a syringe or pen
- The nurse will NOT cover the missed basal insulin

ITEMS NURSE SHOULD HAVE IN MEDICAL ROOM AT ALL TIMES

<table>
<thead>
<tr>
<th>Insulin syringe and vial OR pen</th>
<th>Meter and strips for testing blood glucose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra batteries</td>
<td>Rapid acting carbs to treat hypoglycemia</td>
</tr>
<tr>
<td>Glucagon</td>
<td>Ketone Strips</td>
</tr>
</tbody>
</table>

Insulin Pumps

<p>| Accu-Check Spirit and Spirit Combo | Roche Insulin Delivery Systems | <a href="https://www.accucheckinsulinpumps.com/ipus/">https://www.accucheckinsulinpumps.com/ipus/</a> |
| Dana Diabecare IIS | Sooil Development | <a href="http://www.sooilusa.com/m4_02_iis.html">http://www.sooilusa.com/m4_02_iis.html</a> |
| OmniPod | Insulet Corp | <a href="http://www.myomnipod.com/">http://www.myomnipod.com/</a> |
| Animas 1200, 1250 andOne Touch Ping | Animas Corp | <a href="http://www.animas.com/">http://www.animas.com/</a> |
| T-Slim | Tandem Diabetes Care | <a href="http://www.tandemdiabetes.com/">http://www.tandemdiabetes.com/</a> |</p>
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Pump Name</th>
<th>Picture</th>
<th>Special Features</th>
<th>Battery</th>
<th>Reservoir</th>
<th>Bolus Range</th>
<th>Food Database</th>
<th>CGM Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roche Insulin Delivery Systems</td>
<td>Accu-Check Spirit</td>
<td><img src="image1" alt="Image" /></td>
<td>Pump must be disconnected before going in water. Pump does not calculate bolus – can be done with a separate Palm device.</td>
<td>One AA battery</td>
<td>315 unit cartridge</td>
<td>0.1 to 25 Units in increments of 0.1, 0.2, 0.5 and 1U.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Accu-Check Spirit Combo</td>
<td><img src="image2" alt="Image" /></td>
<td>Has 2-way wireless communication so pump can be controlled by meter. Meter has a bolus advisor.</td>
<td>Pump; AA battery</td>
<td>315 unit cartridge</td>
<td>0.1 to 25 Units in increments of 0.1, 0.2, 0.5 and 1U.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Medtronicis</td>
<td>MiniMed Paradigm</td>
<td><img src="image3" alt="Image" /></td>
<td>Has 2 way wireless communication so pump can communicate with the OneTouch UltraLink Meter or the BD Paradigm Link Meter. Disconnect pump for bathing or swimming.</td>
<td>AAA Battery</td>
<td>Model 523 – 716 Units</td>
<td>0.025 to 25 Units in 0.25 increments</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Revel Insulin Pump</td>
<td><img src="image4" alt="Image" /></td>
<td>Pump has a built in CGM. Disconnect pump for bathing or swimming.</td>
<td>AAA Battery</td>
<td>Same as above</td>
<td>0.025 to 25 Units in 0.25 increments</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>MiniMed Paradigm Real-Time Revel System</td>
<td><img src="image5" alt="Image" /></td>
<td>No tubing required – system consists of a “pod” and a PDM (personal diabetes manager) that wirelessly programs insulin delivery. PDM has a built in BGM.</td>
<td>Pod – battery integrated PDM – 2 AAA batteries.</td>
<td>POD has built-in reservoir that holds 200 units.</td>
<td>0.05 to 35 Units in 0.05U increments</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Insulet Corp</td>
<td>OmniPod</td>
<td><img src="image6" alt="Image" /></td>
<td>Pump mechanics for each model is virtually the same. All calculate boluses using carb counts, BG readings and insulin on board. The 1250 and ping include CarbSmart and ezBG calculator which allow multiple I:C ratios, ISF's and target BG; they also include &quot;Carbs on call&quot; which can store up to 500 items from CalorieKing. The Ping allows for remote operation of pump from BGM.</td>
<td>One AA battery</td>
<td>200 Units</td>
<td>0.05 to 35 Units in 0.05U increments</td>
<td>Animas 1200 - no 1250 and Ping - yes</td>
<td>No</td>
</tr>
<tr>
<td>Aniomas Corp.</td>
<td>Animes 1200</td>
<td><img src="image7" alt="Image" /></td>
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<tr>
<td></td>
<td>Animes 1250</td>
<td><img src="image8" alt="Image" /></td>
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<td></td>
<td>OneTouch Ping</td>
<td><img src="image9" alt="Image" /></td>
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<tr>
<td>Tandem Diabetes Care</td>
<td>Tsksm</td>
<td><img src="image10" alt="Image" /></td>
<td>Color touch screen; flat cartridge design allows for a thinner pump; delivers basal insulin in smallest increments possible (0.001U). Can enter each carb in a meal separately and pump will calculate total. Waterproof up to 3 ft for 30 mins, no need to disconnect while swimming or bathing.</td>
<td>Rechargeable lithium battery</td>
<td>300 Units</td>
<td>0.05 to 25 Units in 0.01U increments</td>
<td>No</td>
<td>No</td>
</tr>
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### Continuous Glucose Monitors

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<tbody>
<tr>
<td>Dexcom G4 Platinum</td>
<td>0.5 x 0.5 x 1.5 in</td>
<td>0.5 x 4 x 1.8 in</td>
<td>Rechargeable transmitter fully charged transmitter lasts for 14 days of continuous use. Charger uses 1 AA battery that lasts for 40 charges. Pump uses 1 AAA battery.</td>
<td>Works wirelessly for up to 50 feet</td>
<td>Takes 2 hours to be ready after inserting sensor</td>
<td>Calibrate every 12 hours. Blood glucose levels must be between 80 and 400 mg/dL to calibrate.</td>
<td>5 days</td>
<td>A connection cable allows for data upload from a OneTouch Ultra meter.</td>
<td>No</td>
<td>Works with Dexcom Studio data management software. Compatible with Windows. Compatible with Mac operating systems. Works with Windows 7 and Vista.</td>
<td></td>
</tr>
<tr>
<td>Medtronic Diabetes Guardian Real-Time</td>
<td>1.4 x 1.1 x 0.3 in less than 0.25 oz (without sensor)</td>
<td>2 x 3 x 0.27 in</td>
<td>Rechargeable transmitter fully charged transmitter lasts for 14 days of continuous use. Charger uses 1 AA battery that lasts for 40 charges. Pump uses 1 AAA battery.</td>
<td>Works wirelessly for up to 6 feet</td>
<td>Takes 2 hours to be ready after inserting sensor</td>
<td>Calibrate every 12 hours. Blood glucose levels must be between 80 and 400 mg/dL to calibrate.</td>
<td>5 days</td>
<td>You can manually enter a glucose reading from any meter or use a Contour Next Link meter, which wirelessly communicates with the system.</td>
<td>No</td>
<td>Works with CareLink Personal data management software, CareLink Personal data management software for data management. Compatible with Windows. Compatible with Mac operating systems. Works with Windows 7 and Vista.</td>
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<tr>
<td>Medtronic Diabetes MiniMed Paradigm Real-Time</td>
<td>1.4 x 1.1 x 0.3 in less than 0.25 oz (without sensor)</td>
<td>Model S23: 2 x 3 x 0.8 in</td>
<td>Rechargeable transmitter fully charged transmitter lasts for 14 days of continuous use. Charger uses 1 AA battery that lasts for 40 charges. Pump uses 1 AAA battery.</td>
<td>Works wirelessly for up to 6 feet</td>
<td>Takes 2 hours to be ready after inserting sensor</td>
<td>Calibrate every 12 hours. Blood glucose levels must be between 80 and 400 mg/dL to calibrate.</td>
<td>3 days</td>
<td>You can manually enter a glucose reading from any meter or use a Contour Next Link meter, which wirelessly communicates with the system.</td>
<td>Yes, the Paradigm Real-Time Revel functions as both an insulin pump and a CGM.</td>
<td>Works with CareLink Personal data management software, CareLink Personal data management software for data management, and CGM data. Compatible with Windows 7 and Vista. Compatible with Mac operating systems.</td>
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<tr>
<td></td>
<td>Model S23: 2 x 3 x 0.8 in</td>
<td>(Weight with battery and full reservoir)</td>
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<td>A combination CGM and insulin pump. Alarms alert up to 30 minutes before glucose hits upper or lower limit, when glucose is rising or falling rapidly, and when glucose reaches preset high and low values. Sensor and transmitter are waterproof for up to 8 feet deep for 30 minutes. Approved for pediatric and adult use.</td>
</tr>
<tr>
<td>AGE (YEARS)</td>
<td>DEVELOPMENTAL ISSUES</td>
<td>DIABETES CARE TASKS</td>
<td>EDUCATIONAL CONSIDERATIONS</td>
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</table>
| 4 to 5     | - Knows likes and dislikes  
- Identifies with “good” and “bad”  
- Inconsistent with food choices  
- Fear of intrusive procedures  
- Magical thinking | - Pinch own skin  
- Collect urine for ketones  
- Turn on meter  
- Place strip in meter  
- Help with recording blood sugars  
- May begin to identify symptoms of hypoglycemia and alert an adult | - Can use guided play, play therapy, artwork to express concerns and to learn |
| 6 to 7     | - Physically coordinated  
- Concrete reasoning  
- Able to share and cooperate | - Can begin to identify carbohydrates in foods  
- Can help with injections  
- Can help with checking blood sugars  
- Able to prick own finger  
- Able to activate bolus on pump with supervision  
- Able to connect and disconnect insulin pump with assistance | - May need reminders and supervision |
| 8 to 10    | - Increased need for independence  
- Does not want to be different  
- Developing “scientific mind”  
- Intrigued by tests  
- Feelings of sadness, anxiety, isolation, and friendlessness | - Able to participate in meal planning  
- Correctly able to identify foods that fit into meal plan  
- Increased independence with injections, blood and urine testing  
- Able to keep records | - Understands only immediate consequences of diabetes control, not long term complications  
- May find support groups, camps, individual counseling helpful  
- Learns most effectively when information is presented in a fun and interesting way |
| 11 to 13   | - Begins puberty: hormonal and physical changes occur for girls  
- Dependent versus independent  
- Struggles between parent and child  
- Aware of body image; concerned with not being different  
- More involved with peers than family | - Can help plan meals and snacks along with starting carb counting  
- Able to recognize and treat hypoglycemia  
- Able to measure and inject own insulin  
- Able to recognize patterns in blood sugar levels  
- May need help in assessing urine tests  
- Able to connect and disconnect insulin pump  
- Able to calculate insulin to food intake | - Peer pressure begins to influence decisions  
- May want to hide their diabetes from their peers |
| 14+        | - Begins puberty: hormonal and physical changes occur for boys  
- Increased physical and social activities  
- Experimentation and risk-taking behaviors  
- Conflict in relationships with parents  
- Strong peer pressure  
- Values independence and self-image  
- Finds assuming responsibility for self-management the most difficult task  
- At risk for eating disorders | - Able to identify appropriate portion sizes  
- Able to alter food intake in relation to blood sugar level  
- Able to anticipate and prevent hypoglycemia  
- Able to calculate insulin dose based on blood sugar level  
- Can independently administer insulin  
- Able to understand role of exercise in calculating insulin needs | - Still needs some parental supervision and review regarding insulin dosing  
- Knows consequences of poor diabetes control  
- Learns best when educational content is pertinent to adolescent issues  
- Able to learn problem solving with adults and negotiate treatment  
- Likes discussion and support groups among peers |

Adapted with permission from the National Association of School Nurses 2008
Section 10: Psychosocial Aspects of Caring for a Child with Diabetes

Consider:
- Family roles and responsibilities
- Self-esteem of student and primary care taker
- Age appropriate goals
- Developmental process
- Burden of living with a chronic illness for student and family

Issues that May Arise:
- Missed doses of insulin or oral drugs at home
- Missed doses of insulin to prevent weight gain, especially in girls
- Manipulation of blood sugar results
- Manipulation of symptoms
- Fear of hypo or hyperglycemia
- Over involvement or too little involvement of the parent
- Health literacy of the parents
- Child frequently runs out of strips or insulin
- Financial concerns:
  - Family uninsured or under-insured
  - Need for “extra” supplies in school

Look for in student and caregivers:
- Denial
- Depression
- Anxiety
- Very quiet
- Withdrawn
- Submissive
- Unhappy
- Limited interaction with other kids
- No friends
- Frustration
- Anger
- Substance abuse
- Change in attention to care when taken care of by different relatives
- Diabetes “burn-out” for child and caregivers

If you see any of the above: Communicate concerns to parents/guardian, school doctor, supervisory nurse, health care provider, or school guidance counselor or psychologist.
Section II: Resources

- American Diabetes Association
  www.diabetes.org/for-parents-and-kids/for-schools.jsp

- CDC
  www.cdc.gov/diabetes

- Juvenile Diabetes Research Foundation
  www.jdrf.org

- National Diabetes Education Program
  www/ncep.nih.gov/resources/school.htm
    - Helping the Student with Diabetes Succeed: available to order for free

- NYS Diabetes Prevention and Control Program
  www.health.state.ny.us/diseases/conditions/diabetes
    - Children with Diabetes: A Resource Guide for Schools: available to order for free

- National Association of School Nurses
  www.nasn.org
    - Helping Administer to the Needs of the Student with Diabetes in Schools

- Children with Diabetes
  www.childrenwithdiabetes.com

- Diabetes Education and Camping Association
  www.diabetescamps.org

- Department of Education School Lunch Nutrition Information
  www.opt.osfns.org/osfns/forms/Nutrition Information. PDF
<table>
<thead>
<tr>
<th><strong>Important Diabetes Terms</strong></th>
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<td><strong>Basal insulin</strong></td>
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<td><strong>Bolus insulin</strong></td>
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<tr>
<td><strong>Continuous Glucose Monitor (CGM)</strong></td>
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<tr>
<td><strong>Conventional insulin therapy</strong></td>
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<tr>
<td><strong>Diabetes ketoacidosis (DKA)</strong></td>
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<tr>
<td><strong>Duration of insulin action (DIA)</strong></td>
</tr>
<tr>
<td><strong>Hemoglobin A1C (HbA1c)</strong></td>
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<tr>
<td><strong>Honeymoon phase</strong></td>
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<tr>
<td><strong>Hypoglycemia unawareness</strong></td>
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<tr>
<td><strong>Insulin on board (IOB)</strong></td>
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<tr>
<td><strong>Insulin sensitivity factor (aka glucose correction factor)</strong></td>
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<tr>
<td><strong>Insulin stacking</strong></td>
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<tr>
<td><strong>Insulin to carb ratio</strong></td>
</tr>
<tr>
<td><strong>Intensive management/Intensive insulin therapy</strong></td>
</tr>
<tr>
<td><strong>Target BG level/range</strong></td>
</tr>
</tbody>
</table>