Pediatric Diabetic Teaching Guidelines/Checklist

This teaching guideline contains the essential elements for teaching pediatric inpatients with diabetes. All teaching and patient/family responses should be recorded on the Pediatric Patient Teaching Diabetes Addendum.

<table>
<thead>
<tr>
<th>CONTENT OUTLINE</th>
<th>COMMENTS</th>
<th>TEACHING RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is Diabetes? Page 9</td>
<td>Inpatient nurses will order all supplies needed for discharge on patient admission so they should be available for LC teaching sessions in patient room.</td>
<td>Companion book for 12th edition: A First Book for Understanding Diabetes.</td>
</tr>
<tr>
<td>❑ Review pathophysiology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Types of Diabetes and causes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDDM (Type 1) – Page 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIDDM (Type 2) – Page 21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Discuss Differences)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal blood glucose levels for non-diabetic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factors that influence glucose levels: Illness, exercise, insulin doses, food intake, hormones (growth, sports, menstruation) Page 48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HgbA1C in relation to level of glucose control Page 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal for diabetic patient Page 151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toddlers/Preschoolers (6yrs or younger) - less than or equal to 8.5 (but greater than or equal to 7.5%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School-age (6yrs to 12yrs) - less than 8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescents/Young Adults (13yrs to 19yrs) less than 7.5% (Goals should be individualized and lower goals may be reasonable based on benefit: risk assessment) the 12th edition of Pink panther is the most current. This is what is stated, but it is not per current ADA recommendations. Goal hemoglobin A1C: &lt; 7.5% Per ADA 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honeymoon period – Page 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Blood Glucose Monitoring – Page 51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discuss purpose of a glucose meter. Safety and improved control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using lancet to provide “finger stick” sample – Page 53-54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remind to wash hands with soap and water rather than using alcohol wipes or waterless hand sanitizer (i.e. Purell®)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to apply sample to strip – depends on meter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proper timing of procedure Page 56-58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC, HS, &amp; (initially 0200), &amp; PRN for first month</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coding if needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to check strip/control solution, &amp; frequency of controls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check weekly &amp; when opening new strips or when troubleshooting meter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleaning of meter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---Pink Panther text pages 53-54

---(See individual meter’s user manual)

---(Goal is to demonstrate to parents and then have them practice on themselves, progressing toward independent measuring and recording of child’s blood glucose levels on their own.)

---(Order extra meter from CS)
<table>
<thead>
<tr>
<th>CONTENT OUTLINE</th>
<th>COMMENTS</th>
<th>TEACHING RESOURCES</th>
</tr>
</thead>
</table>
| ✗ Trouble-shooting  
  ✓ Not enough blood  
  ✓ Battery  
  ✓ Coded correctly | | Meter specific instructions in box. |
| ✗ Testing at home, school, daycare, etc.  
| ✗ Recording results in “Bucky Badger” logbook – bring to appointment | | ***Note hospital policy states that we must still document all blood glucose levels using UWHC meter.* |

3) Insulin Injections

| ✗ What is insulin? Page 65 |
| ✗ Types of insulin Page 66 (introduce the types that the patient will be taking)  
  ✓ Onset of each type  
  ✓ Peak of each type  
  ✓ Duration of each type  
  ✓ Dosages and schedule patient is currently on  
  ✓ Side effects of insulin (hypoglycemia) | ---Pink Panther text Chapter 8 |
| ✗ Insulin storage and expiration Page 86 |
| ✗ Drawing up 1 type of insulin  
  Page 80-81  
  ✓ Glargine (Lantus®) cannot be mixed with other types of insulin | ---Pink Panther pages 65-75 (helpful table page 70) |
| ✗ Drawing up & mixing 2 types of insulin  
  Page 80  
  ✓ Air into NPH, Air into Regular or Aspart®  
  ✓ Then draw up Regular or Aspart® followed by NPH (Do not mix long acting insulin into short acting vial) | --- (Parents to demonstrate drawing up and administering insulin. May choose to draw up sterile water and practice injections on practice balls, fruit or on themselves.) |
| ✗ Injection sites & rotation Page 79  
  ✓ Rotate sites; suggest using the same site for the same time of day from one day to next. (Ex) each am use arms, pm use legs, HS use abd, etc.) | |
| ✗ How to give SQ insulin Page 82-83  
| ✗ How to record dosage (in “Bucky Badger” logbook)  
| ✗ What to do if you miss a dose  
  ✓ Call MD  
| ✗ Expect dosages to be adjusted by MD/NP to establish better control over time. “Honeymoon Period” (p. 12) | |

4) Carbohydrate Counting/Diet

| ✗ Types of meal planning  
  ✓ Constant Carb Meal Plan  
  ✓ Carb Counting Meal Plan  
  ✓ Exchange Meal Plan | Have nurses page Dietitian to meet with patient and family. | ---Pink Panther Chapter 12  
(Also reference dietary section in Diabetic education binder.)  
(Order low and “no” carb snacks for patient’s own floor stock to be used as needed when child wants a snack but blood glucose levels are elevated. See dietary list of low/”no” carb snacks.) |
5) Hypoglycemia/Hyperglycemia

- What does hypo/hyperglycemia mean? – Chart Page 58
- Review suggested glucose goals – Page 151
  - ADA 2015
  - Before meals BG 90-130
  - Bedtime/overnight BG 90-150
  - (this may be individualized per endo md)

- Signs & symptoms of hyperglycemia/Acidosis
  Fasting less than 240 or non-fasting Value greater than 300

- Causes & treatment of hyperglycemia, Page 290
  - Illness/stress/carbohydrates/missed insulin, etc
  - Treatment-insulin

- Signs and symptoms of hypoglycemia
  Page 38

- Causes of hypoglycemia
  - Missed meals/snacks
  - Too much insulin
  - Illness, exercise, etc. (May have delayed hypoglycemia following very active periods. On these days eat extra carb/protein snack before bed, check BS at 0200. Also should call MD to adjust insulin in anticipation of active days.)

- How to treat hypoglycemia
  - Carbohydrate choices - Rule of 15, Page 41
  - Glucagon for emergencies (discuss in next section)

- Recognizing low blood glucose reactions with friends/school/daycare, Page 39
  - Prevent
  - Be prepared: Carry carbohydrate with you
  - Teach others

- Rationale for Medic Alert Bracelet and ordering information. Also available in AFCH gift shop. Page 47-48 Pink Panther

--- Pink Panther text Chapter 6

--- Pink Panther text Chapter 15

6) Glucagon Pages 45-47

- What is glucagon?
  - Purpose
  - How it works

- When to use it
  - Unable to take anything by mouth
  - Loss of consciousness
  - Seizure caused by low blood glucose, reinforce to give Glucagon even if parent is shaken up from seizure.
- **What dose is appropriate for your child**, page 44 but per MD.
  - < 5 years = 50 units (0.5mL)
  - > 5 years = 100 units (1.0mL)

- **How to mix and inject glucagon SQ or IM as recommended by our endocrine staff**, page 46 (giving glucagon SQ prevents confusion for families since they already administer insulin SQ) can give through clothes in emergency.

- **Side effects**
  - Nausea, vomiting

- **What to do after giving glucagon**
  - Check blood glucose level, roll to side if risk of vomiting, call 911 - unless patient is awake and family is comfortable with situation. Inform family that it may take 10 to 15 minutes to work.

- **Use of glucagon in school, etc. page 255**

<table>
<thead>
<tr>
<th>7) Sick Day Management: HFFY 5647</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How illness effects glucose levels</strong></td>
</tr>
<tr>
<td><strong>Effects of minor illnesses (cold, sore throat) on blood glucose levels</strong></td>
</tr>
<tr>
<td><strong>Need for increased monitoring</strong></td>
</tr>
</tbody>
</table>
| **Types of fluids and foods to drink/eat**
  - If unable to eat, replace carbs with liquids and soft foods containing sugar to prevent body from producing ketones (even if BS is elevated) |
| **Use of over the counter medicine with illness**
  - May use as needed |
| **Ketoacidosis Pages 160-161**
  - What is it?
  - How to check urine for ketones (every 4 hours when ill)
  - Watch ketostix bottle for expiration date (6 months after opening) |
| **Insulin adjustment for sick days**
  - MD/NP to help determine this, CALL early with questions |
| **MOST IMPORTANT!! KNOW HOW AND WHEN TO CALL MD IF SICK:**
  - 608-263-6420 ext # 3 or 608-262-2122 to page Pediatric Diabetes MD on-call
  - As a general rule, should always call MD if sick—esp. if vomiting |

Please **review HFFY 5647 for all families. This is more concise and specific to AFCH than Pink Panther book.**

--- **Demonstrate with sample glucagon kit (available in cupboard where diabetic teaching materials are kept, or obtain through endocrine staff.)**

--- **Have family verbalize how and when to administer.**

--- **Sick day guidelines for children with diabetes HFFY 5647**

--- **Pink Panther Chapter 16 Page 167-168**

Order Ketostix prior to teaching. Demonstrate use with actual bottle of ketostix.

Supplemental teaching:

Can give list of family diabetes materials.

JDRF Backpack
Ask family to fill out the bag of Hope Form and mail back in self addressed/stamped envelope. Inform family about ADA diabetes camp, give camp registration handout.
Uwhealthkids.org/diabetes
### Discharge Planning

- **Telephone Numbers to Call:**
  - Peds Diabetes Office: 608-263-6420 ext # 3

- **Learning Center visit 2 week**
- **RTC in 4-6 weeks**
  - Visit with NP
  - RTC 3 months visit with diabetes MD provider

- Check with MD to see if family should call results of blood glucose levels in to MD following discharge, prior to follow up appointment. (Sometimes MDs prefer that results are called in on certain days following initial days at home).

- **Have prescriptions for all diabetes supplies** (insulin, syringes, lancets, strips glucagon, etc.) *sent with patient to take to local pharmacy for ease of refilling.*

- This is no longer the current practice if school-age, have MD complete school orders on HL and give signed copy to parent

- **Additional discharge supplies:**
  - 3 gallon sharps container
  - Sharps Instruction HFFY
  - 1 qt sharps container for travel
  - Alcohol swabs
  - Blood glucose monitor with adequate lancets and strips
  - Adequate starter syringes
  - Ketostix
  - Etc. (See CS sheet as printed in Diabetic education Binder.)

---

**AFCH inpatient nurses to do discharge teaching.**

---

**HFFY 4587**

---School instruction templates should be available in discharge section of Diabetic materials binder.

---Also see discharge section of binder for CS form template for ordering DC supplies online, and templates of prescriptions and DC facesheet.

### References:
