Legal Obligations
Legal Obligations

Americans with Disabilities Act

• Whom does it apply to?
• What does it require?
• What does it mean for me?
Legal Obligations

ADA: Whom Does It Apply To?

• Title III of the ADA applies to “places of public accommodation”
• All programs that are open to the public
• All ___’s programs are subject to the requirements of title III
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ADA: What Does It Require?

• Prohibits discrimination on the basis of disability
• Requires entities to make “reasonable modifications” in policies, practices, or procedures to ensure access by the person with a disability
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ADA: What Does It Require?

*Common reasonable modifications for children with diabetes*

- Checking a child’s blood glucose levels and responding to those that are too low or too high
- Helping a child administer his or her insulin *and* administering insulin for a child who cannot do it independently
- Counting carbohydrates
- Administering lifesaving glucagon in an emergency
Legal Obligations

ADA: What Does It Mean For Me?

• Duty to ensure your center is following all ___ policies with regard to diabetes and the ADA
• Train your staff to understand diabetes and be comfortable with the new policies
• Elevate concerns to Inclusion Services
Diabetes Care: What Is Diabetes?

**In diabetes:**
- The body does not make or properly use insulin

**Insulin is needed to:**
- Move glucose from blood into cells for energy

**If insulin isn’t working, high blood glucose results in:**
- Low energy levels
- Dehydration
- Complications
Diabetes Care: Type 1 Diabetes

- Autoimmune disorder
- Insulin-producing cells are destroyed
- Daily insulin replacement is necessary for survival
- Age of onset: usually childhood, young adulthood
- Most common type of diabetes in children and adolescents
Diabetes Care: Type 2 Diabetes

- Insulin resistance – first step
- Insulin or other injectable medications may or may not be required for treatment

- Age of onset: most common in adults but increasingly common in youth
- Risk factors include:
  - Genes
  - Ethnicity
  - Overweight
  - Inactivity
Diabetes Care: The 24/7 Juggling Act

* Physical activity generally lowers blood glucose. However, certain activities may raise blood glucose for some students.
Diabetes Care: Hypoglycemia

Mild to Moderate Symptoms
- Extreme Hunger
- Shakiness
- Weakness
- Paleness
- Dizzy or lightheaded
- Increased heart rate
- Yawning
- Irritability/confusion
- Extreme tiredness/fatigue
- Sleepiness
- Changed behavior
- Sweating
- Anxiety
- Dilated pupils
- Restlessness
- Confusion
- Sudden crying

Severe Symptoms
- Inability to eat or drink
- Unconscious
- Unresponsive
- Seizure activity or convulsions (jerking movements)
Diabetes Care: Hyperglycemia

Mild Symptoms
- Lack of concentration
- Frequent urination
- Sweet, fruity breath
- Weight loss
- Stomach pains
- Thirst
- Flushing of skin
- Blurred vision
- Increased hunger
- Fatigue/Sleepiness

Moderate Symptoms
- Dry mouth
- Stomach cramps
- Vomiting
- Nausea

Severe Symptoms
- Labored breathing
- Profound weakness
- Confusion
- Unconscious
Diabetes Care: What Is Insulin?

Insulin is a hormone that is necessary:
- Moves glucose from blood into cells for energy

Children with type 1 diabetes do not produce insulin

Without enough insulin, high blood glucose results:
- Energy levels are low
- Dehydration
- Complications
Diabetes Care: Administering Insulin

• Many children require rapid acting insulin before meals and snacks; timing should be included in the Diabetes Care Plan
  – Note, hypoglycemia can occur if meal or snack is delayed for more than 15 minutes after insulin injection or insulin pump bolus
• The carbohydrate amounts need to be calculated or the child will need help in choosing foods that fit their meal plan
• It is important that the child eats all the food they said they were going to eat to prevent a low blood sugar since the insulin dose is determined by the food intake anticipated for that meal/snack
Diabetes Care: Insulin Delivery Methods

- Insulin syringe
- Insulin pen
- Insulin pump
Diabetes Care: Method of Insulin Delivery

Syringe and vial or insulin pens may be used for those on injections **but also** for those on insulin pump therapy during times of pump malfunction.

**Insulin injection**
- Prescribed insulin therapy
- Prescribed as back-up plan if insulin pump malfunctions
- Prescribed for only certain seasons – determined by student, parent/guardian and provider

**Insulin pump**
- Prescribed and intended year-round **unless** pump malfunction
- Prescribed and used for only certain seasons – determined by student, parent/guardian, and health care provider
Diabetes Care: Insulin Injections

- Inject into fat layer under skin
- Rotate sites
- Child should help choose site

Common sites: abdomen, thigh, buttocks, upper arms
Diabetes Care: Insulin Syringes

Sizes: 30, 50, 100 units
- Whole unit markings
- Half unit syringes often preferred in very young children

Disposal
- Do not reuse
- Do not recap
Diabetes Care: Insulin Pens

Types of pens
- Pre-filled pens
- Reusable (cartridge) pens

Types of insulin in pens
- Basal or long-acting insulin
- Bolus or rapid-acting insulin

Most children will only take rapid-acting or bolus insulin while at school/in a child care program.
Diabetes Care: InPen Smart Pen

• Reusable insulin pen for patients 12 years and older
• Delivers up to 30 units of insulin dialed in half unit increments
• Works with specific blood glucose meters
• Needle-free and does not require mixing
• Calculates insulin dose based on dose history, blood glucose levels, and carbohydrate intake
• Uses target blood glucose, insulin-to-carbohydrate ratio, and sensitivity factor determined by diabetes provider
• Compatible with Apple and Android smart phones
• www.companionmedical.com/inpen
Diabetes Care: Insulin Pumps

- Battery operated device about the size of a pager
- Reservoir filled with insulin
- Insulin is delivered by tubing or from a “patch”
- Worn 24 hours per day
- Delivers only rapid-acting insulin
Diabetes Care: Blood Glucose Monitoring

- Simply, easy to use
- Small meters
- Reliable results (with smaller samples)
- Options for alternate (to finger poke) site testing
- Enhanced electronic functions to record, share, and analyze data
- Limitation – unknown blood glucose between checks
Diabetes Care: Continuous Glucose Monitors (CGM)

CGM have three parts: A sensor, transmitter, and receiver:

- A tiny glucose-sensing device called a "sensor" is inserted just under the skin and remains for 7-10 days
- A transmitter is attached to the sensor and sends the information to a receiver
- The receiver can be a manufacturer-issued display device, smart device or insulin pump
- The system automatically records a glucose value every 1-5 minutes
- Some CGM provide alarms to signal when glucose is out of target range
- Some CGM devices are FDA-approved for insulin dosing and treatment decisions
Diabetes Care: Examples of CGMs
Diabetes Care: Hybrid Closed-Loop Insulin Pumps

More advanced hybrid closed loop systems self-adjust insulin delivery based on sensor data

- The Medtronic 670G System and the Tandem X2 Control-IQ (a pump + a sensor) partially automates insulin delivery to help students stay in a target glucose range
- Can be used in Auto-Mode (hybrid closed loop) or Manual-Mode (basic pump and sensor therapy without automated delivery)
- Paired with CGM technology enabling automated basal insulin adjustments
- Important to address alerts
- Children who cannot self-manage independently will require assistance
What is Glucagon?

- Naturally occurring hormone made in the pancreas
- Life-saving, hormone that raises blood glucose level by stimulating the liver to release stored glucose
- Injectable (Glucagon/GlucaGen)
- Treatment for severe hypoglycemia
- Life-saving, cannot harm a student – cannot overdose
Nasal Glucagon

Baqsimi
- A dry nasal glucagon powder spray given to treat severe hypoglycemia in patients 4 years and older
- Given in a single 3mg dose
- Inhalation is not required
- Needle-free and does not require mixing
- Administration requires 3 steps:
  - Removal of device from tub
  - Insertion of device tip into one nostril
  - Push plunger all the way in

www.baqsimi.com
Gvoke Glucagon Injection

- A pre-filled liquid glucagon injection that does not require mixing
- Approved for patients 2 years and older
- Available in 2 dosages for kids (0.5 mg) and adults/adolescents (1.0 mg)
- Administration requires 2 steps:
  - Remove the cap
  - Press the pen against the skin
  Automatic injector will deliver glucagon upon contact with skin and then retract the needle

www.gvokeglucagon.com
Conventional Glucagon Injection Kit

- Kit contains a pre-filled liquid injection that is mixed with the vial of powder
- Given in 2 dosages for kids (0.5 mg) and adults/adolescents (1.0 mg)
- Administration requires multiple steps:
  - Remove the cap
  - Inject syringe with liquid into powder vial and mix
  - Inject syringe into tissue as per physician’s orders
  - Place child on side and call 911
  - Consciousness regained in 10-20 minutes

www.lillyglucagon.com
www.glucagenhypokit.com
# Diabetes Care: High Alert Situations

Parent/Guardian should be called if a child has:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe low blood glucose</td>
<td></td>
</tr>
<tr>
<td>Vomiting, positive ketones</td>
<td></td>
</tr>
<tr>
<td>Refusing to eat</td>
<td></td>
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<tr>
<td>Refusing to check blood glucose</td>
<td></td>
</tr>
<tr>
<td>Low blood glucose has been treated but is not coming up</td>
<td></td>
</tr>
<tr>
<td>High blood glucose has been treated but is not coming down</td>
<td></td>
</tr>
</tbody>
</table>
What are Ketones?

- Acids that result when the body does not have enough insulin and uses fats for energy
- May occur when insulin is not given, during illness or extreme bodily stress, or with dehydration
- Can cause abdominal pain, nausea, and vomiting
- Without sufficient insulin, ketones continue to build up in the blood and result in diabetic ketoacidosis (DKA)

American Diabetes Association.
Why Check For Ketones?

• DKA is a critical emergency state

• Early detection and treatment of ketones prevents diabetic ketoacidosis (DKA) and hospitalizations due to DKA

• Untreated, progression to DKA may lead to severe dehydration, coma, permanent brain damage, or death

• DKA is the number one reason for hospitalizing children with diabetes
Checking for Ketones

**Urine**
- Most widely used

**Blood**
- Requires a special meter and strip
- Procedure similar to blood glucose checks
Diabetes Care: Where To Learn More

www.diabetes.org/SafeatSchool

- Child Care Diabetes Medical Management Plan
- Tips for Managing Diabetes in the Child Care Setting
- Care of Young Children with Diabetes in the Child Care Setting (Position Statement)