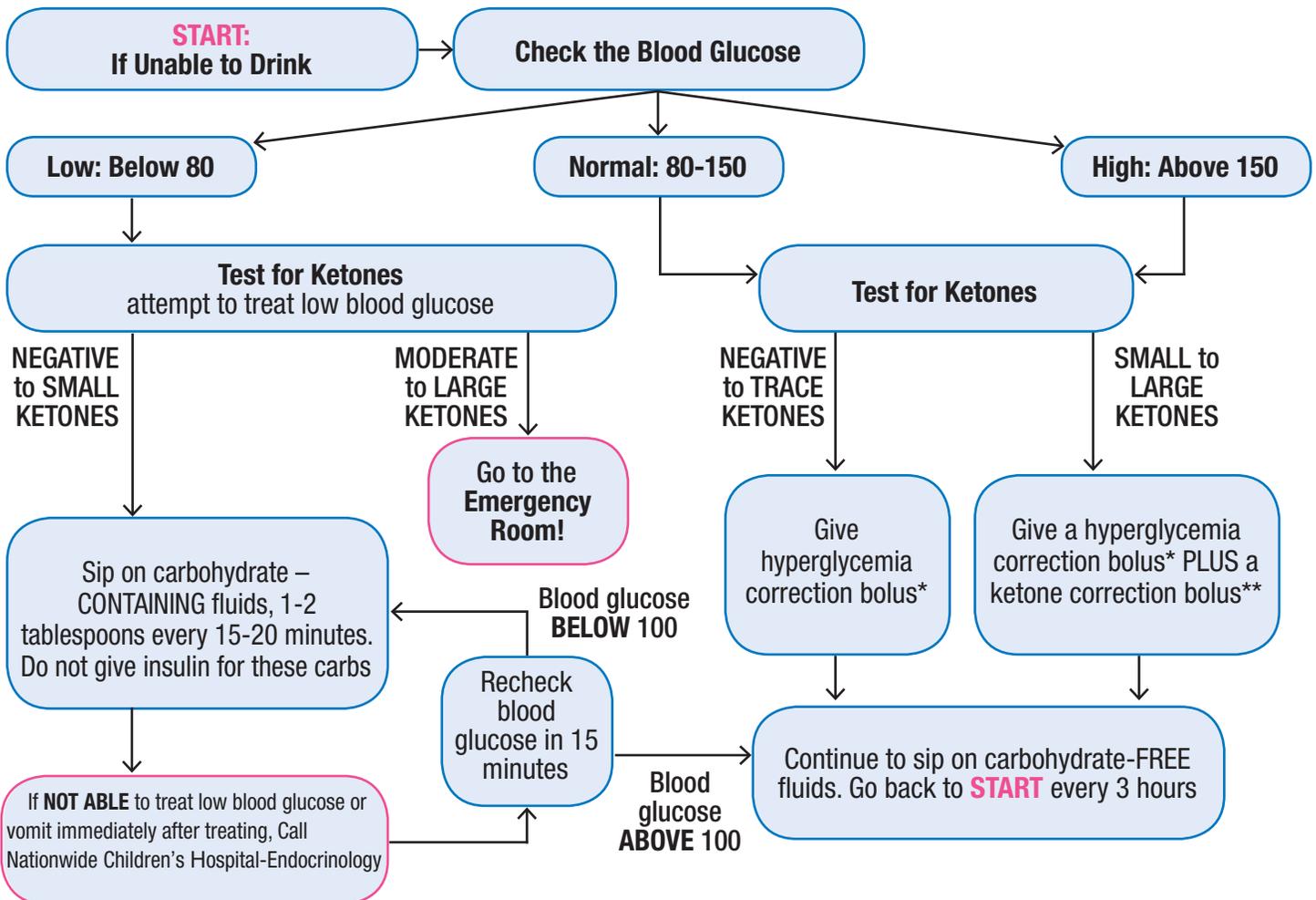


# Diabetes SOS: Sick Day Self-Management

## Flowsheet - Insulin Injection Therapy When Unable to Drink (Vomiting)



\*Only if blood glucose is above target and it has been 3 hours since last carb and/or rapid-acting insulin dose

\*\*See "Diabetes SOS: Ketone Correction Bolus Worksheet" to calculate amount of extra insulin for ketone correction

### CALL nationwide Children's hospital- Endocrinology (614) 722-4425 if any of the following occur:

- Your child is under 2 years of age.
- You are not sure what to do.
- Your child vomits three times in a row without being able to retain any liquids.

- You have treated a LOW blood glucose (hypoglycemia) TWICE in a row with NO improvement.
- You have treated MODERATE to LARGE ketones TWICE in a row with NO improvement.

**In an Emergency, call 911**



**NATIONWIDE CHILDREN'S**  
When your child needs a hospital, everything matters.<sup>SM</sup>

# Diabetes SOS: Sick Day Self-Management

## Ketone Correction Bolus Worksheet

When ketones are present, additional insulin is needed. Use the following steps to calculate the ketone correction bolus to be used in addition to insulin for carbohydrates and insulin for hyperglycemia correction.

The ketone correction bolus is always rapid-acting insulin (Humalog, NovoLog, or Apidra) but it is calculated as a percentage of the basal insulin.

**SMALL ketones:** give a dose of rapid acting insulin that is 5% or 0.05 of daily basal insulin.

**MODERATE or LARGE ketones:** give a dose of rapid acting insulin that is 10% or 0.10 of daily basal insulin.

### Calculation:

	X		=	
Total Basal Dose		Small: 0.05 Mod or Large: 0.10		ketone correction bolus (use Humalog, NovoLog or Apidra)

**Example:** Moderate ketone in someone using Humalog for boluses and taking 20 units Lantus each day  
**20 units Lantus per day X 0.10 = 2 units Humalog**

Add the Ketone Correction bolus to the carb bolus (if any) and the hyperglycemia correction bolus (if any) to determine the size of the total bolus.

Ketones can be checked in either urine or in blood. The urine dipsticks indicate Negative, Trace, Small, Moderate, or Large Ketones. Here is how to interpret the blood ketones from the number on the meter:

Blood Ketone Measurements	
Greater than 3 mmol/L	<b>GO DIRECTLY to Emergency Room</b>
LARGE 1.6 – 3.0 mmol/L	
MODERATE 1.0 – 1.5 mmol/L	
SMALL 0.6 – 0.9 mmol/L	
NEGATIVE Less than 0.6 mmol/L	

**Call Nationwide Children’s Hospital- Endocrinology or go to the Emergency Department if Signs and Symptoms of Diabetic KetoAcidosis (DKA) are present at ANYTIME!**

Your child may require treatment in the hospital if one or more of the following are present:

- Rapid deep breaths with a fruity odor
- When you pinch up the skin on the back of their hand and let go, the skin does not immediately flatten out again like the skin on your own hand
- Increased heart rate/pulse
- Dizziness
- Lethargic or unable to arouse
- Prolonged vomiting and/or abdominal pain



**NATIONWIDE CHILDREN’S**  
*When your child needs a hospital, everything matters.<sup>SM</sup>*